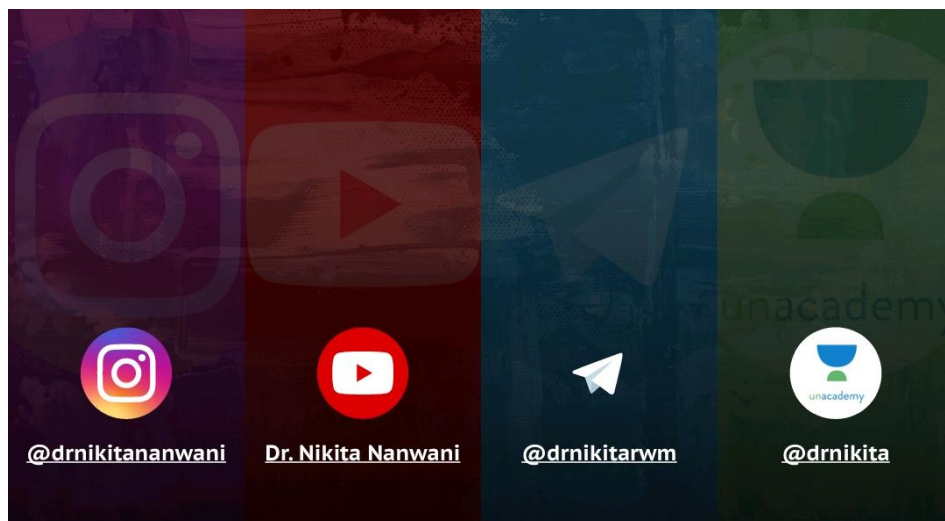


Telegram group - <https://t.me/drnikita> Sure shot 150 course link - <http://bit.ly/3Yq2IBk>



Magic Book 2.0- Dr.Nikita Nanwani

Low dose , High potency, High efficacy



ANATOMY

1. Skull Foramina

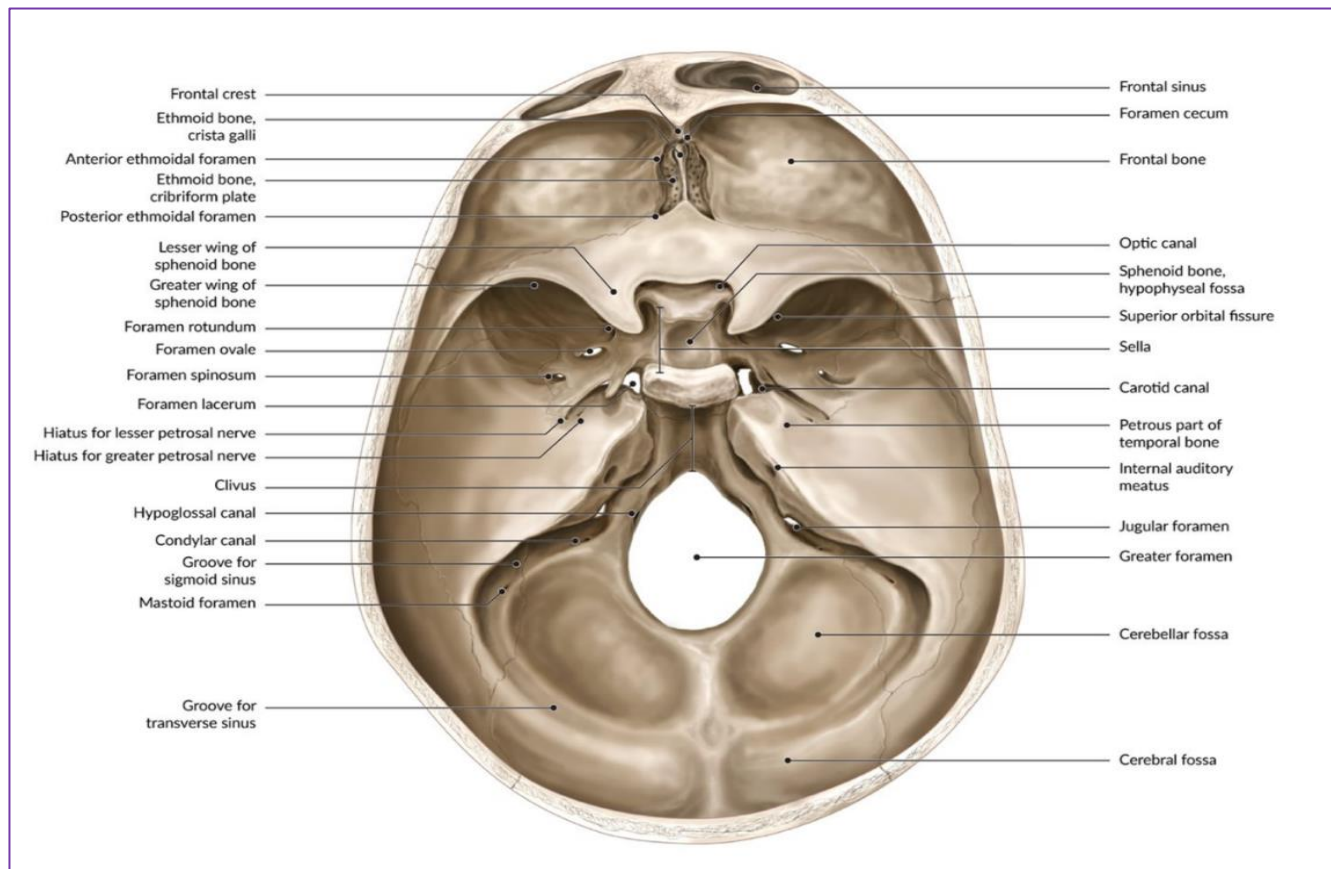


Fig: A 1.1

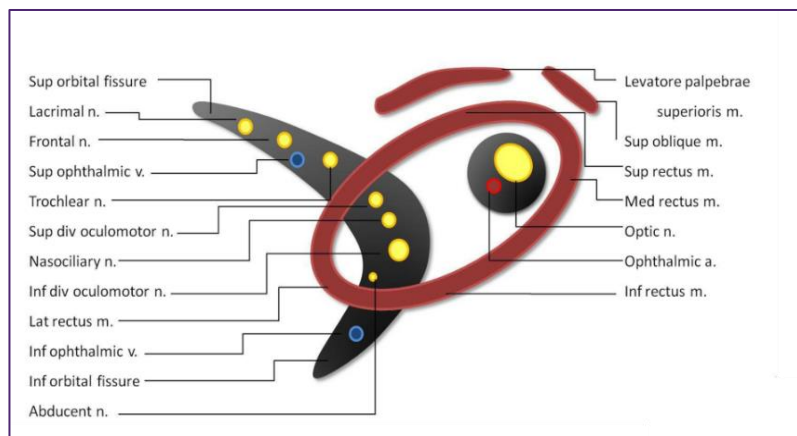


Fig: A 1.2

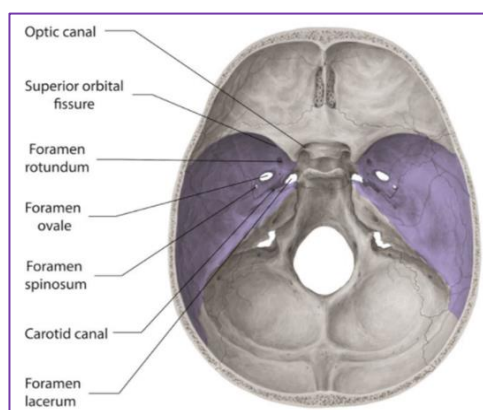


Fig: A 1.3



Fig: A 1.4

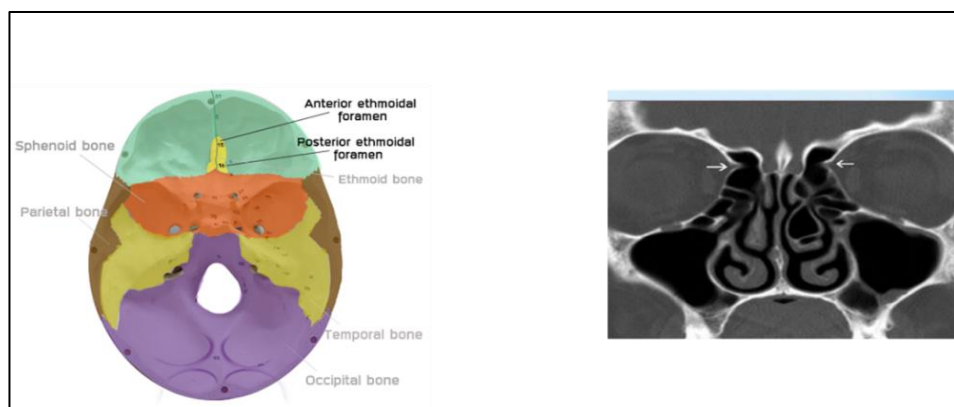


Fig: A 1.5

	FORAMEN	STRUCTURES PASSING
1	Olfactory foramina	Olfactory nerve
2	Optic canal	Optic nerve (CNII), ophthalmic artery, dural sheath of optic nerve
3	Superior orbital fissure	Oculomotor nerve (CNIII), trochlear nerve (CN IV), ophthalmic division of the trigeminal nerve (CNV1), abducent nerve (CNVI), ophthalmic veins
4	Foramen rotundum	Maxillary division of the trigeminal nerve (CN V2)
5	Foramen ovale	Mandibular division of the trigeminal nerve (CN V3), accessory meningeal branch of maxillary artery, emissary vein (, lesser petrosal nerve)
6	Foramen spinosum	Middle meningeal artery
7	Foramen lacerum	Greater petrosal nerve
8	Carotid canal	Internal carotid artery
9	Internal acoustic foramen	Facial nerve (CNVII), Vestibulocochlear nerve (CNVIII)
10	Jugular foramen	Glossopharyngeal nerve (CNIX), vagus nerve (CNX), descending portion of the spinal accessory nerve (CNXI), internal jugular vein
11	Hypoglossal canal	Hypoglossal nerve (CNXII)
12	Foramen magnum	Brainstem/spinal cord, vertebral arteries, ascending portion of the spinal accessory nerve (CNXI)

Table: A 1.1

- Magic points :

2. Upper limb nerve injuries



Fig A. 2.1



Fig A. 2.2



Fig: A 2.3



Fig: A 2.4

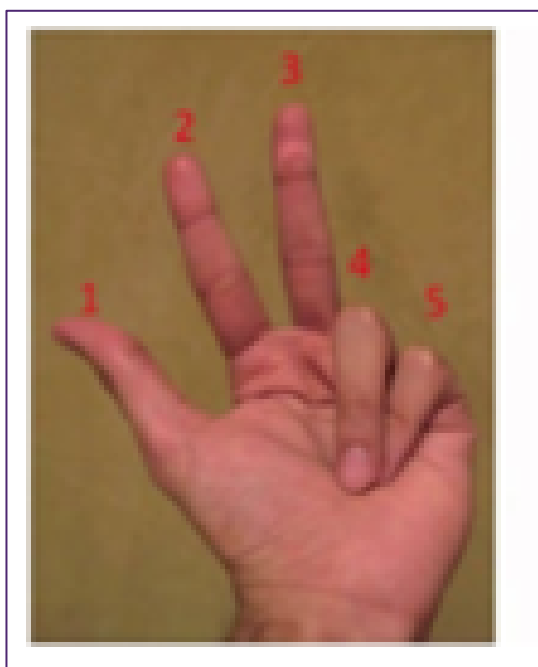


Fig: A 2.5



Fig: A 2.6



Fig: A 2.7



Fig: A 2.8

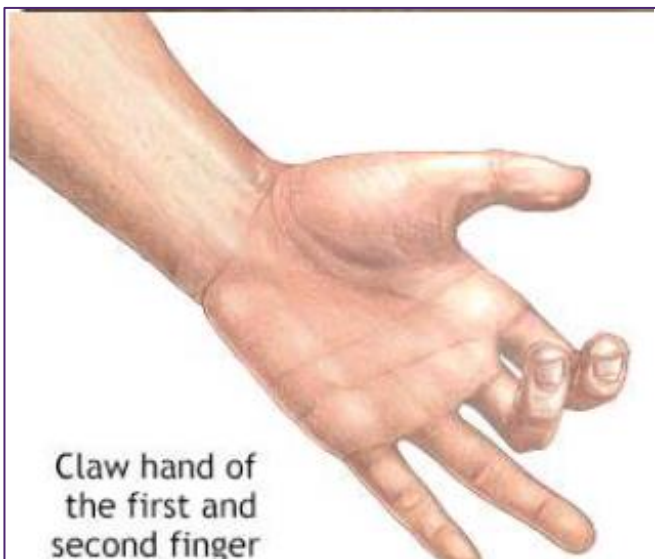


Fig: A 2.9

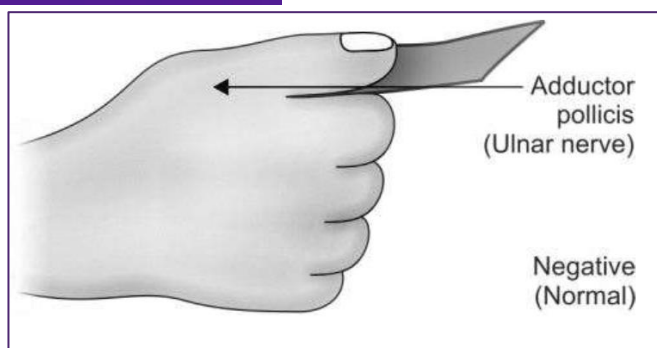


Fig: A 2.10

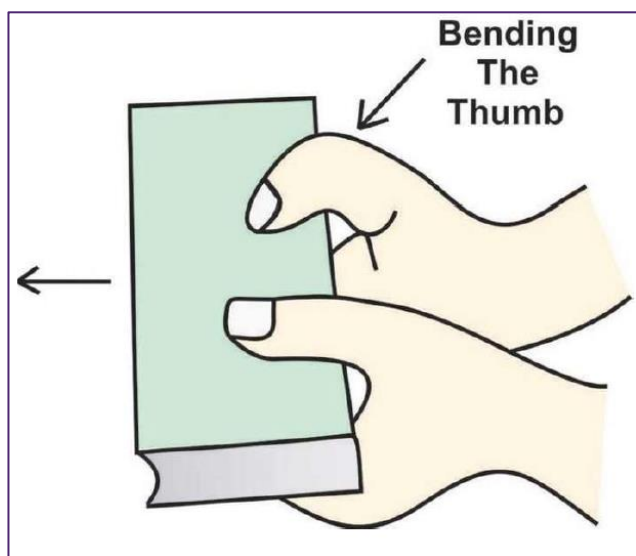


Fig: A 2.11



Fig: A 2.12



Fig: A 2.13

3. Brachial plexus Branches & Root values



Fig A.3.1

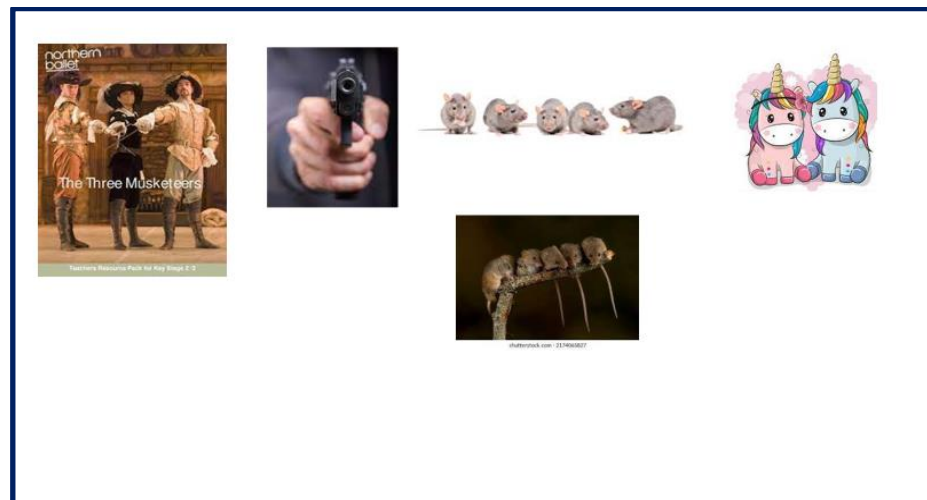


Fig A.3.2

Imp Points	
Root value of brachial plexus	
Arrange in sequence	
No branch from	
Branch from roots	
Branch from trunk	
Branch from lateral cord	
Branch from medial cord	
Branch from posterior cord	

Table: A 3.1

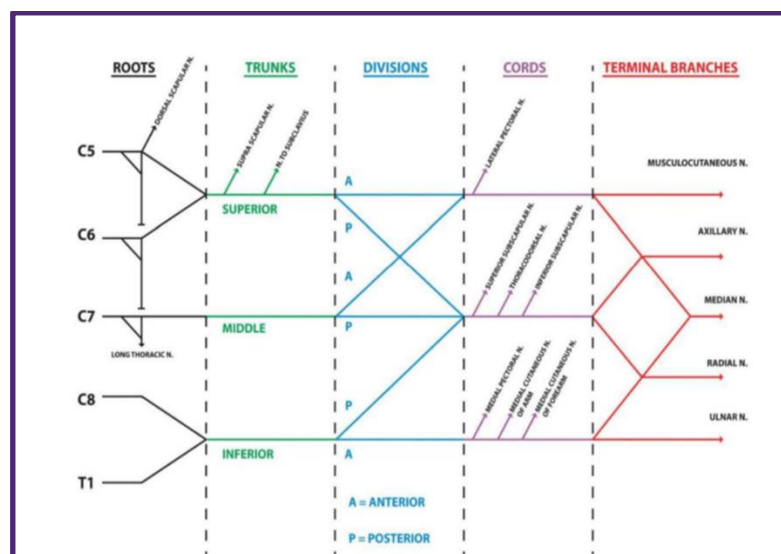


Fig: A.3.3

4. Brachial plexus injury

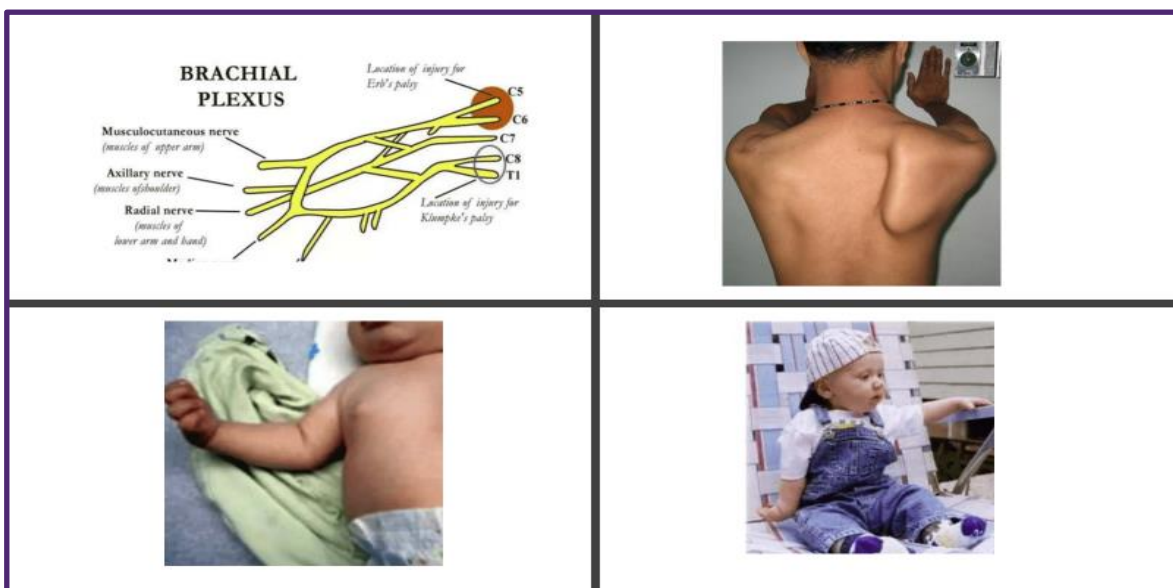


Fig A 4.1

5. Upper limb fractures and nerve injury

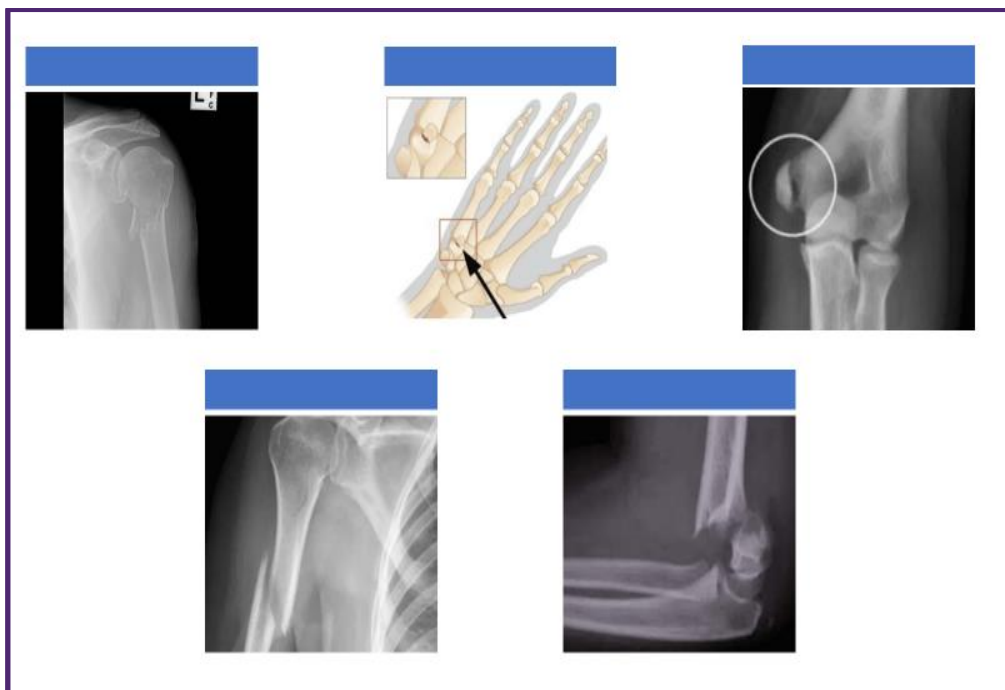


Fig: A 5.1

6. Neuroanatomy - Brainstem

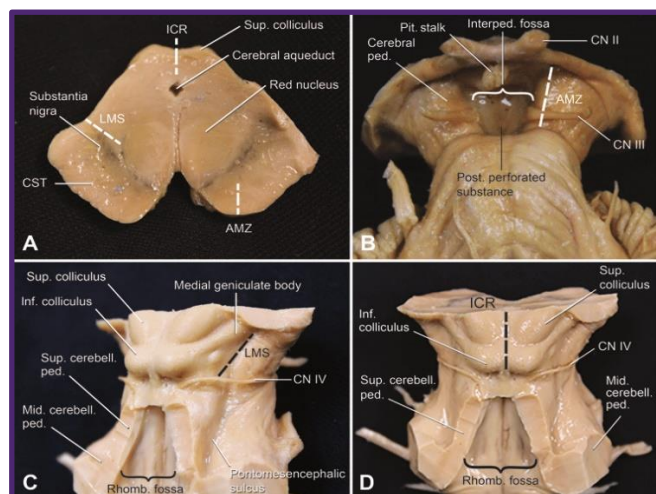


Fig: A 6.2



Fig: A 6.2

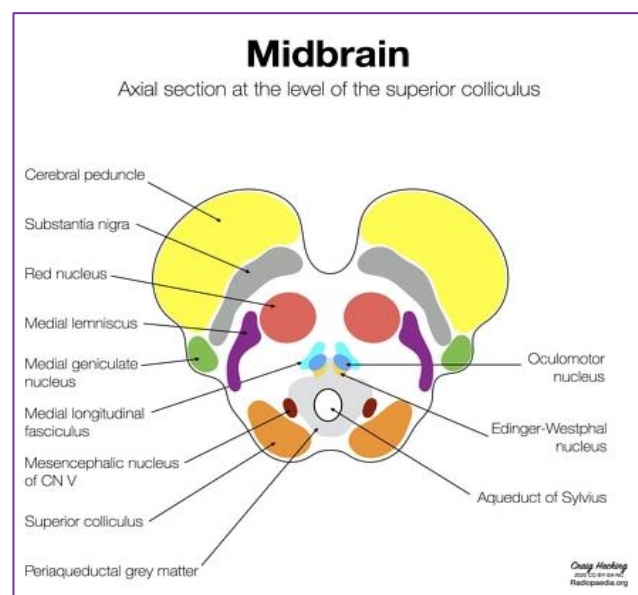


Fig: A 6.3

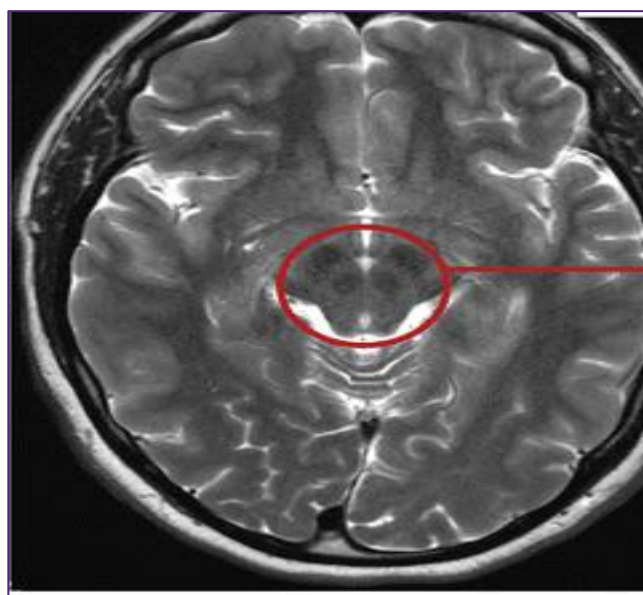


Fig: A 6.4

<i>Syndrome</i>	<i>Level of lesion</i>	<i>Features</i>
Weber syndrome	Cerebral peduncle	Ipsilateral III nerve palsy +contralateral
Benedikt syndrome	Red nucleus	Ipsilateral III nerve palsy+ contralateral
Nothnagel syndrome	Fasciculus +superior Cerebral peduncle	Ipsilateral III nerve palsy+cerebellar ataxia
Claude syndrome	Combination of benedikt and nothnagel syndrome	

Table: A 6.1

7. Cranial nerves

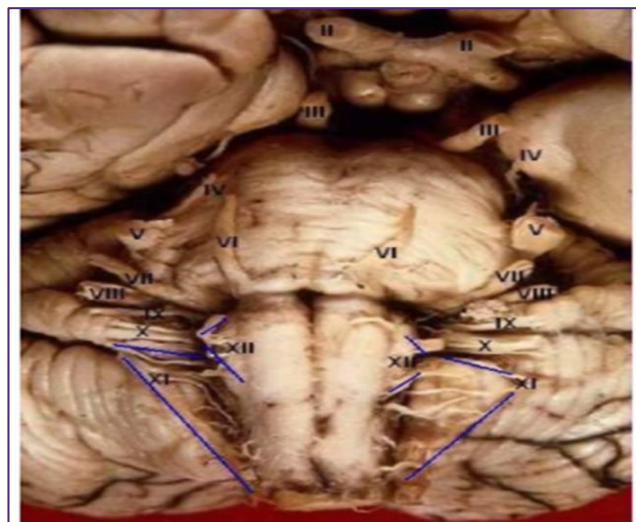


Fig: A 7.1

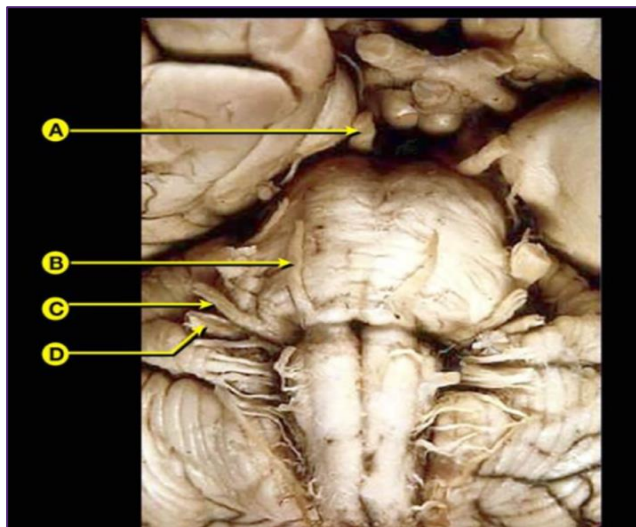


Fig: A 7.2



Fig: A 7.3

8. Brain blood supply

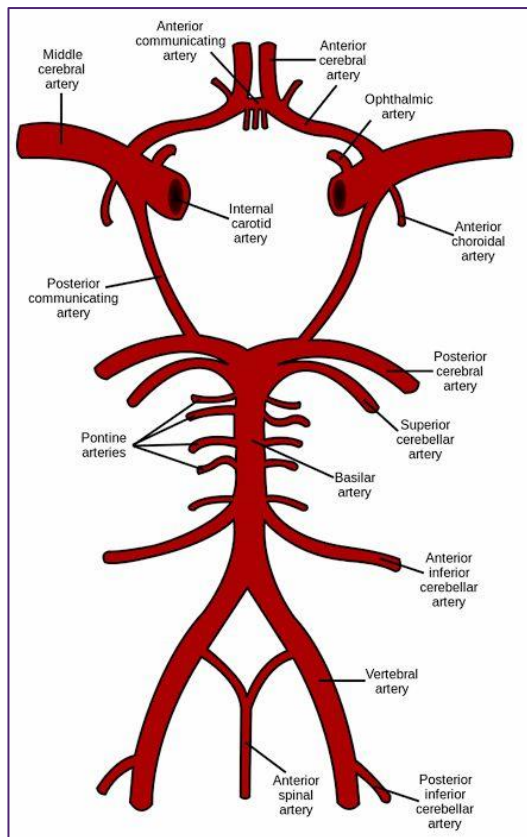


Fig A 8.1



Fig A 8.2

9. Neural crest cell (NCC) derivatives

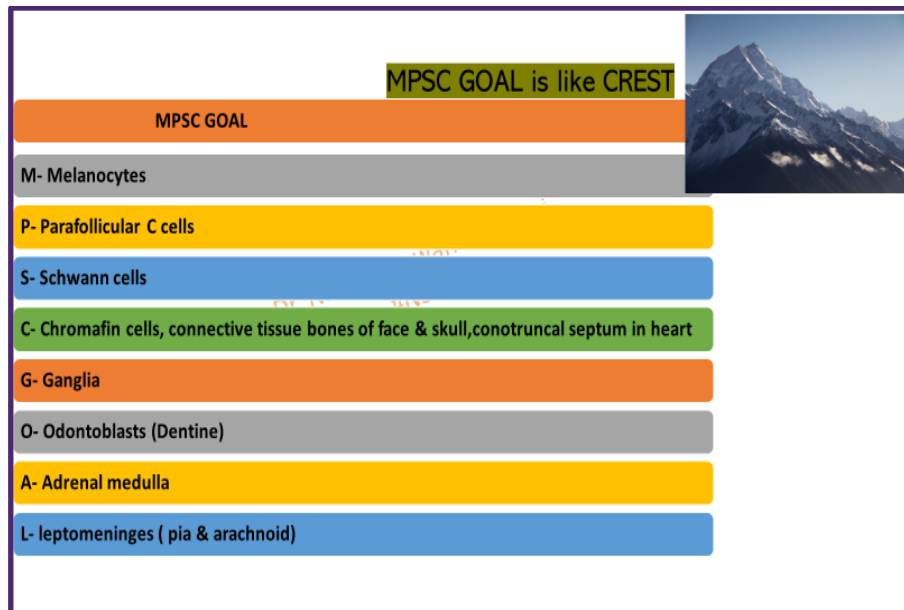


Fig: A 9.1

10. Eye Embryology

S.No.	Structure	Derived from
1	Lens	
2	Conjunctiva epithelium	
3	Cornea epithelium	
4	Cornea stroma	
5	Cornea endothelium	
6	Retina, RPE	
7	Extra ocular muscles	
8	Iris muscles	
9	Ciliary muscles	
10	Lacrimal & Tarsal glands	

Table: A 10.1

11.

Pharyngeal apparatus derivatives

1st
Revision

2nd
Revision

3rd
Revision

4th
Revision

5th
Revision

	Pharyngeal cleft	Pharygeal arch				Pharyngeal pouch
I		Nerve	Muscles	Skeletal	Aortic arch	
II						
III						
IV						
V						
VI						

Table: A 11.1

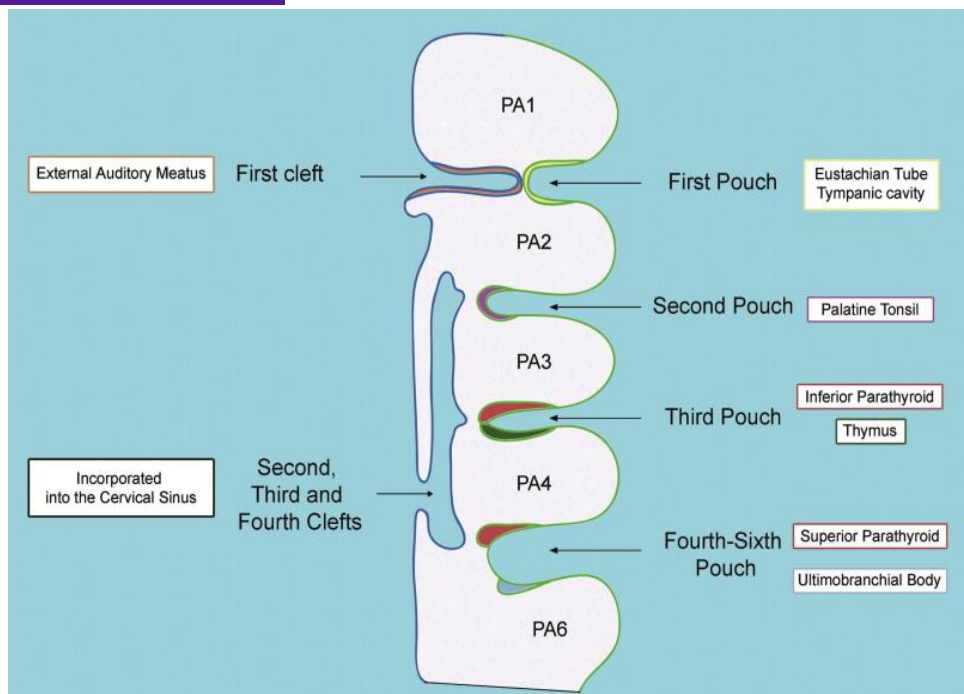


Fig A 11.1

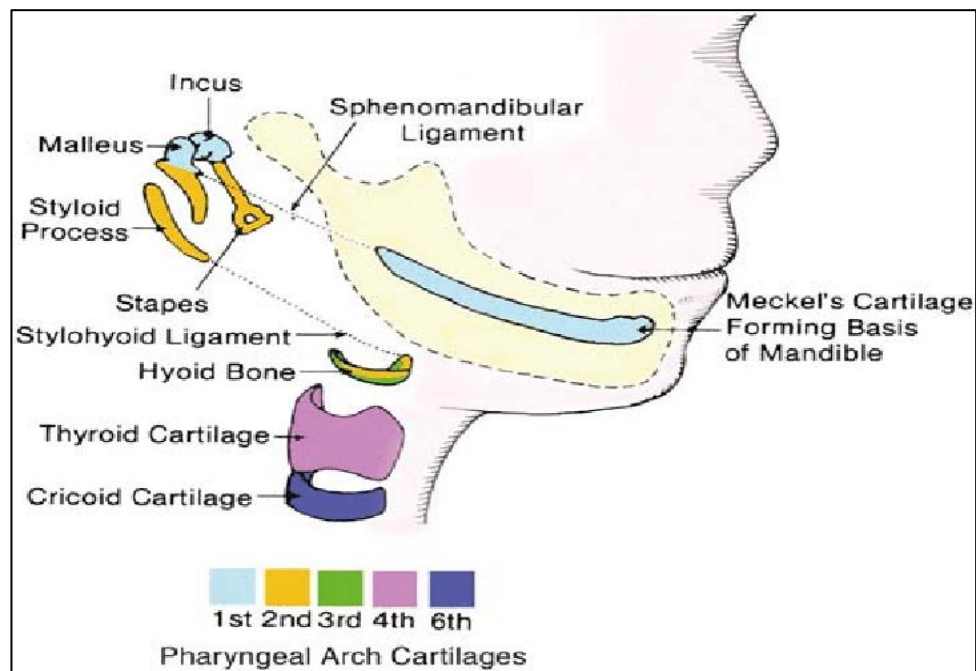


Fig A 11.2

12. Dermatomes & Reflex root value

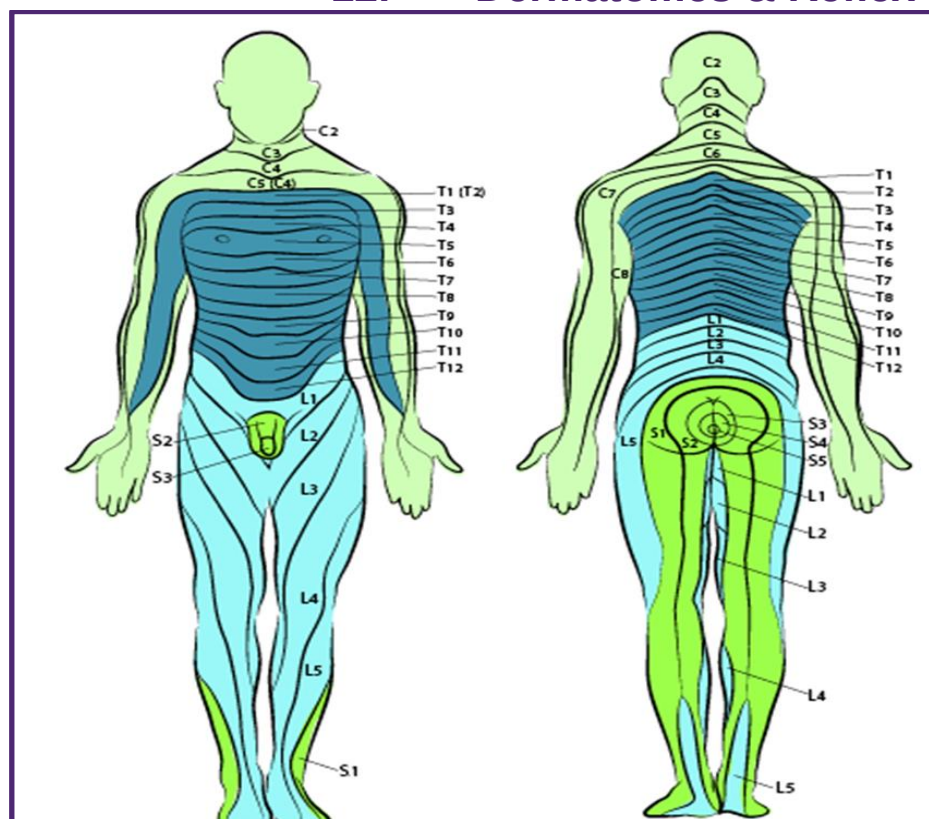


Fig A 12.1

Reflex	Root value
1. Ankle reflex	
2. Knee reflex	
3. Biceps	
4. Triceps	
5. Cremasteric	
6. Plantar	

Table: A 12.1

13. Types of joints

Skull	Jt between vomer and sphenoid	
	sphenooccipital	
	atlantooccipital	
	atlantoaxial	
Upper limb	Elbow	
	Wrist	
	MCP	
	IP	
	Superior RU	
	Middle RU	
	Inferior Ru	
	Shoulder	
	1st CMC	
Lower limb	Hip	
	Knee	
	ankle	
	Superior TF	
	Inferior TF	
	Pubic symphysis	
Saddle	1st CMC	
	CC	
	SC	
	MI	
Ossicles	MI	
	IS	
Thoracic wall	costochondral	
	manubriosternal	
	xiphisternal	
	costo vertebral	
	costo transverse	

Table: A 13.1



DATE	DATE	DATE	DATE	DATE
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MAGIC TRACKER

14. Muscles of mastication

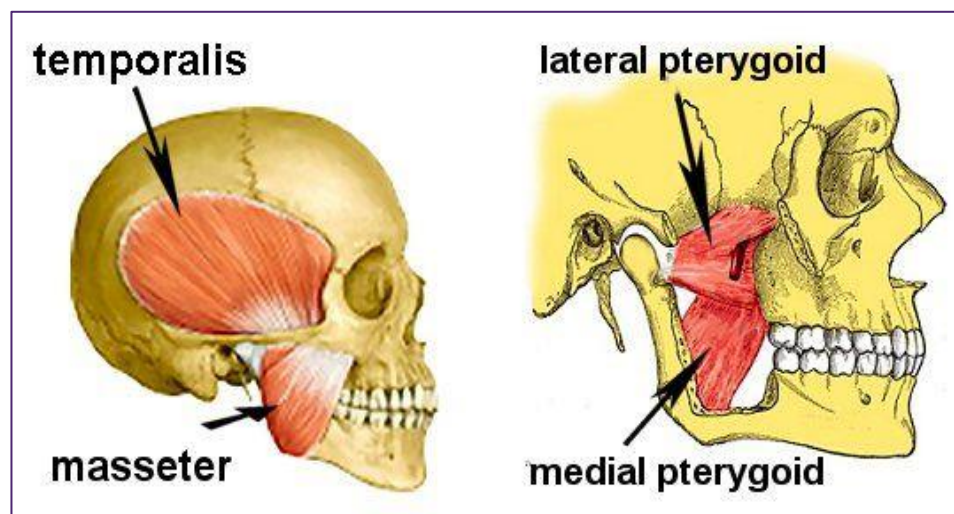


Fig A 14.1

- **Magic points to be remembered**
 - Lateral pterygoid
 - Temporalis
 - Medial pterygoid
 - Masseter
- All elevate mandible except (Jaw depressions / opening mouth is done by) -
- All cause protrusion except
- TMJ articular disc insertion
- Coronoid process insertion

15. Diaphragm openings

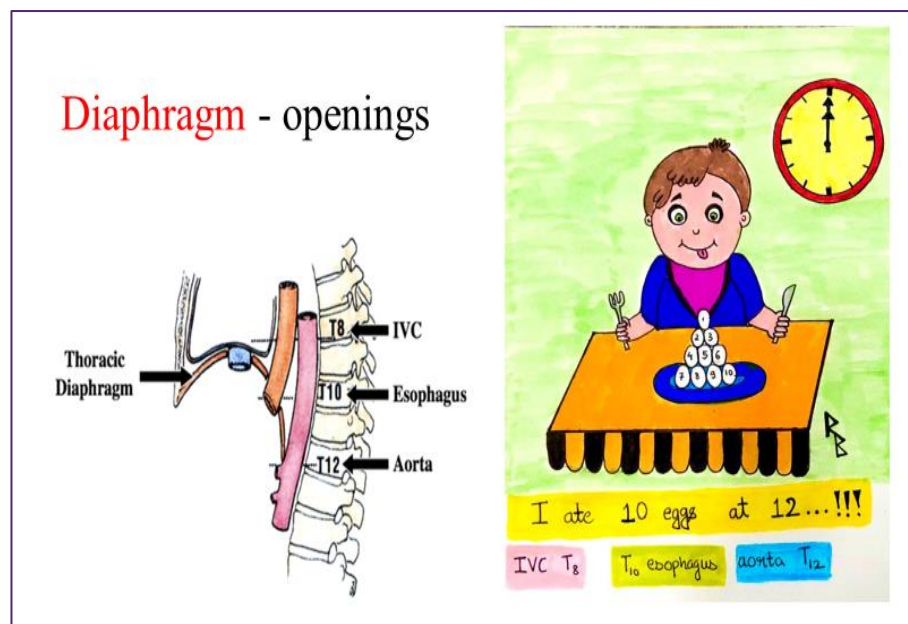


Fig A 15.1

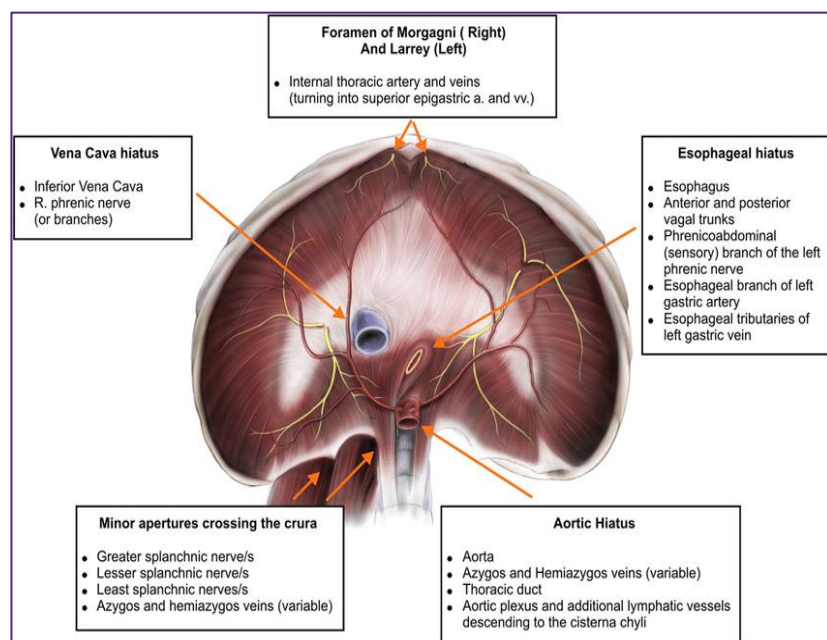


Fig A 15.2

16. Heart - Blood supply , Embryology

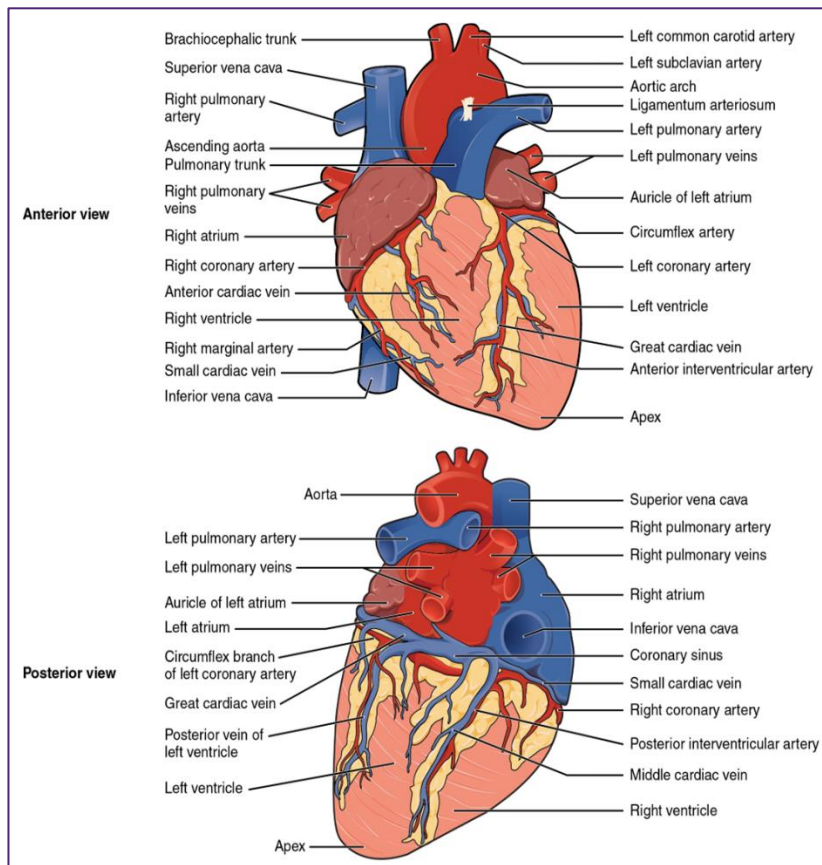


Fig A 16.1

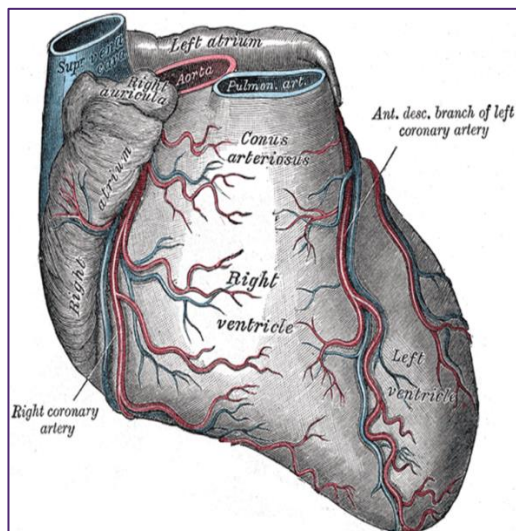


Fig A 16.1

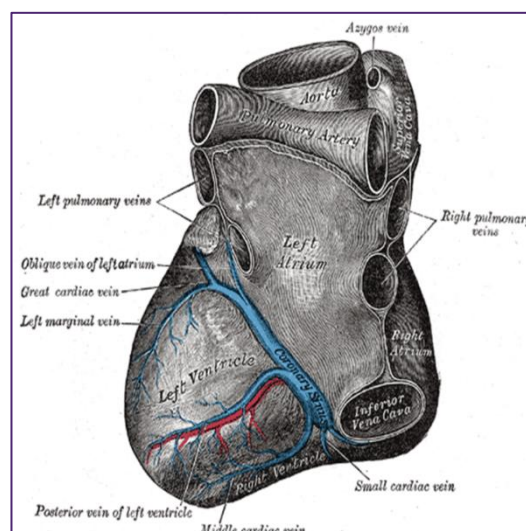


Fig A 16.2

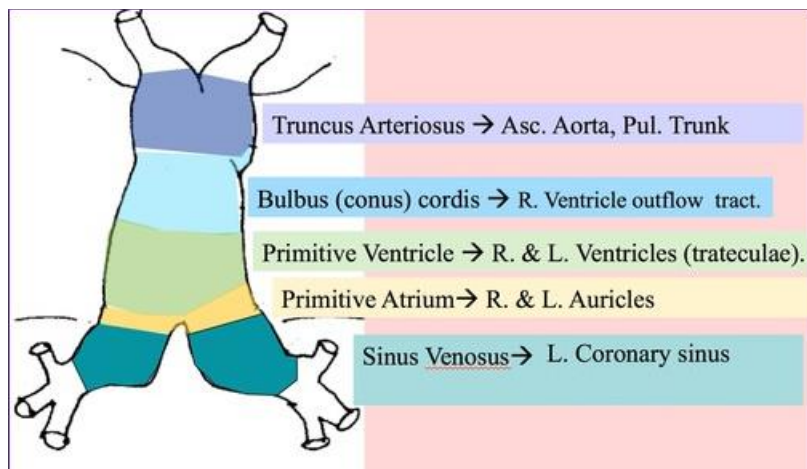


Fig A 16.4

MAGIC NOTES

Lined area for writing notes.



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MAGIC TRACKER

MAGIC NOTES

Lined area for writing notes.



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MAGIC TRACKER

PHYSIOLOGY

17. Hormones second messenger

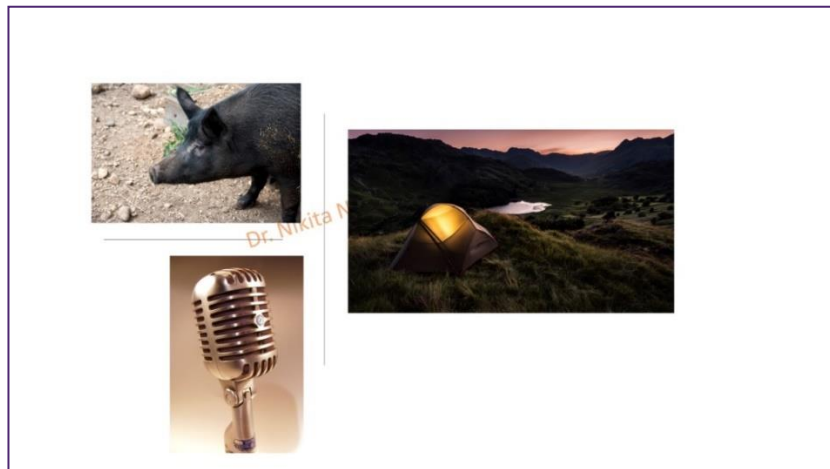


Fig B 17.1

Second messenger	Hormones	Mnemonic
cAMP	FSH	
	LH	
	ACTH	
	TSH	
	Calcitonin	
	ADH – V2 receptor	
	MSH	
	PTH	
	Beta 1 , 2	
	HCG	
	CRH	
	Glucagon	
IP3/DAG	GnRH	
	GHRH	
	TRH	
	Oxytocin	
	ADH- V1	
	Angiotensin II	
	Alpha 1 receptor	
Tyrosine kinase	Prolactin	
	Insulin	
	IGF	
	Growth hormone	
Steroid hormones	Steroid hormones	
	Thyroid	
	Vit D	
cGMP	ANP	
	NO	
	EDRF	

Table: B 17.1

18. Basal ganglia circuit



Fig B 18.1

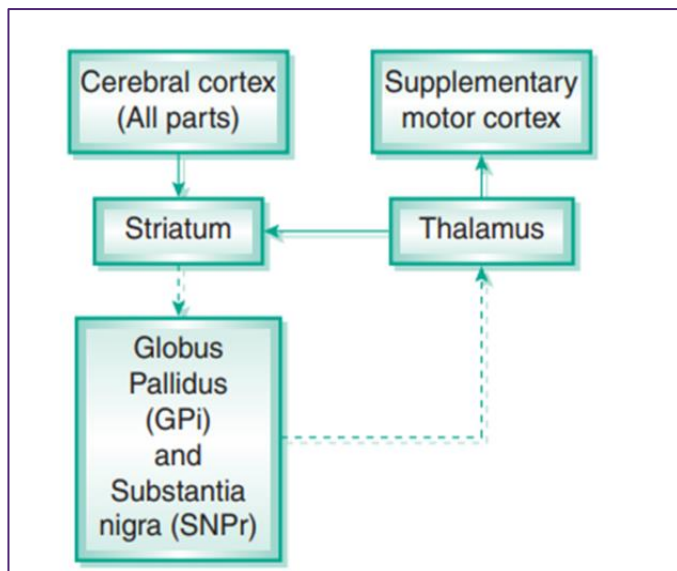


Fig B 18.2

	Input	Output	Neurotransmitter
Corpus striatum	Cerebral Cortex and thalamus	GPe and Gpi	95% GABA (Small neurons) 5% Ach (large Neurons)/Somatostatin (medium neurons)
Gpe	Striatum	Gpi and subthalamic Nucleus	GABA
Gpi and Substantia nigra pars reticulata (SNpR)	Striatum and GPe	Ventrolateral and ventroanterior thalamus	GABA
Subthalamic nucleus	GPe	Gpi and GPe	Glutamate
Substantia Nigra pars compacta	Striatum	Stritum	Dopamine
Ventrolateral Thalamus	Gpi and SNpr	Premotor cortex	Glutamate

Table : B 18.1

Excitatory projections from cortex (corticostriate pathway) to striatum are glutaminergic.

Excitatory projections from STN to Gpi are glutaminergic.

Dopaminergic projections from SNc to striatum are both excitatory (D1 receptor) and inhibitory (D2 receptor).

Other inhibitory pathways in basal ganglia are GABAergic.

19. Site of lesion of movement disorders

<i>Site of Lesion of Movement Disorders</i>	
Movement disorder	Site of Lesion
Athetosis	Globus pallidus
Chorea	Putamen, Caudate
Hemiballismus	Subthalamic nucleus
Parkinsonism	Substantia Nigra

Table: B 19.1

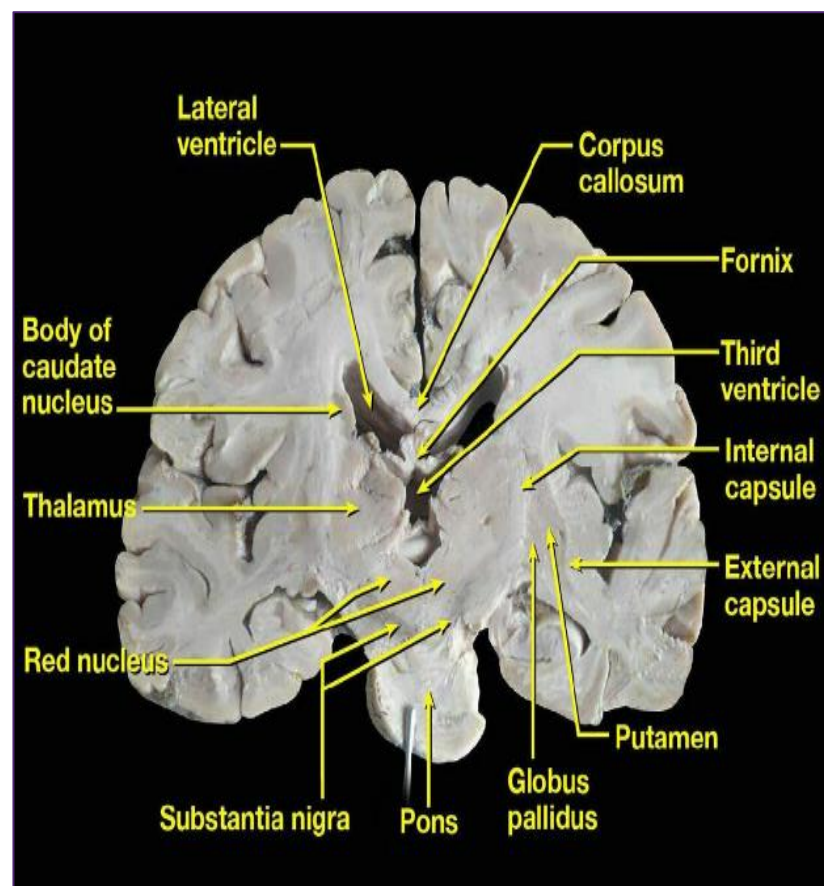


Fig B 19.1

20. GFR -Starling forces & factors

Effects of changes in starling Forces on GFR Renal Plasma Flow, and Filtration fraction

Effect	GFR	RPF	FF(GFR/RPF)	Reasoning
Constriction of afferent arteriole (eg.Sympathetic stimulation)	↓	↓	No change	
Constriction of efferent arteriole (eg angiotensinII)	↑	↓	↑	
Increased plasma protein	↓	No change	↓	
Decreased plasma protein	↑	No change	↑	
Ureteral stone /constriction of the ureter	↓	No change	↓	

Table: B 20.1

21. Heart sounds

Heart Sound	Frequency	Duration	Associated Event	ECG Correlation
S1	25-45Hz	0.15 sec	Closure of AV Valves-Onset of Ventricular systole	Later half or R wave
S2	50Hz	0.12 sec	Closure of semilunar Valve-onset of ventricular diastole	Later half of T wave
S3	Low	0.1 sec	First rapid filling phase of ventricular diastole	Between the T and P wave
S4	Below 20Hz	0.1 sec	Last rapid filling phase of ventricular diastole due to atrial constraction	Following P wave

Table: B 21.1

Heart Sounds in relation to ECG

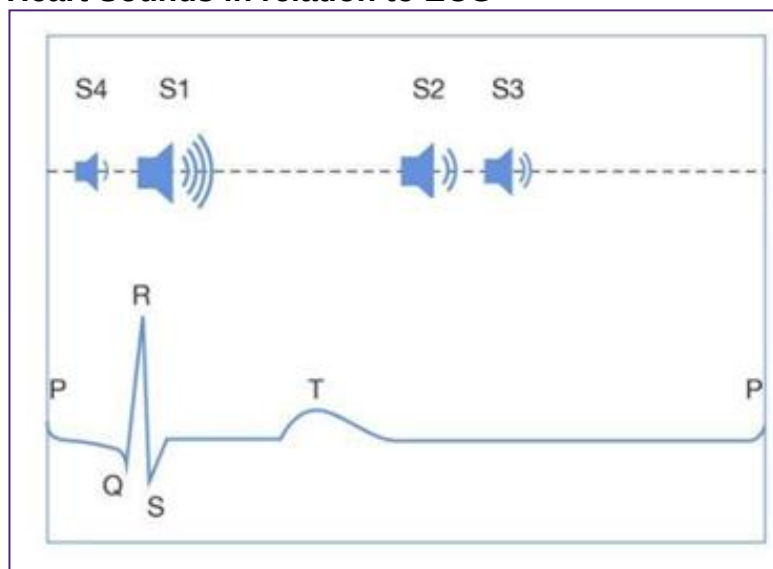


Fig B 21.1

22. JVP

Waves of JVP:

- a- atrial systole pushing the blood to the ventricles.
- c- isovolumetric contraction of ventricles causing the tricuspid valve to bulge.
- x'- fall in atrial pressure during ventricular systole due to pull of valve leaflets.
- v- venous filling which creates an increase in atrial pressure.
- y- passive filling of ventricles by a passive flow of the blood from the right atrium.

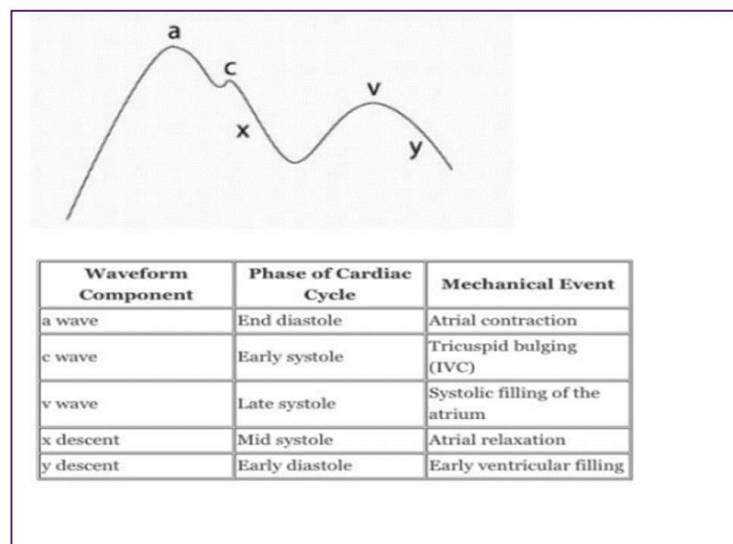


Fig B 22.1

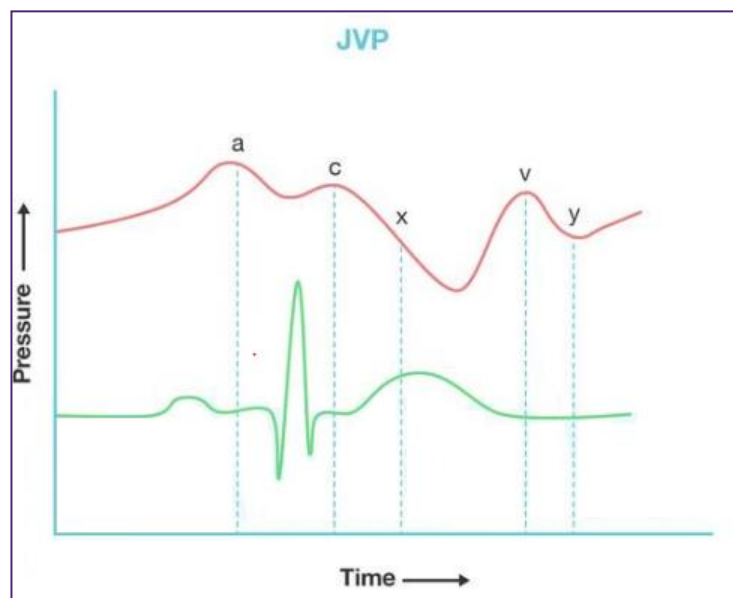


Fig B 22.2

23. Wigger diagram

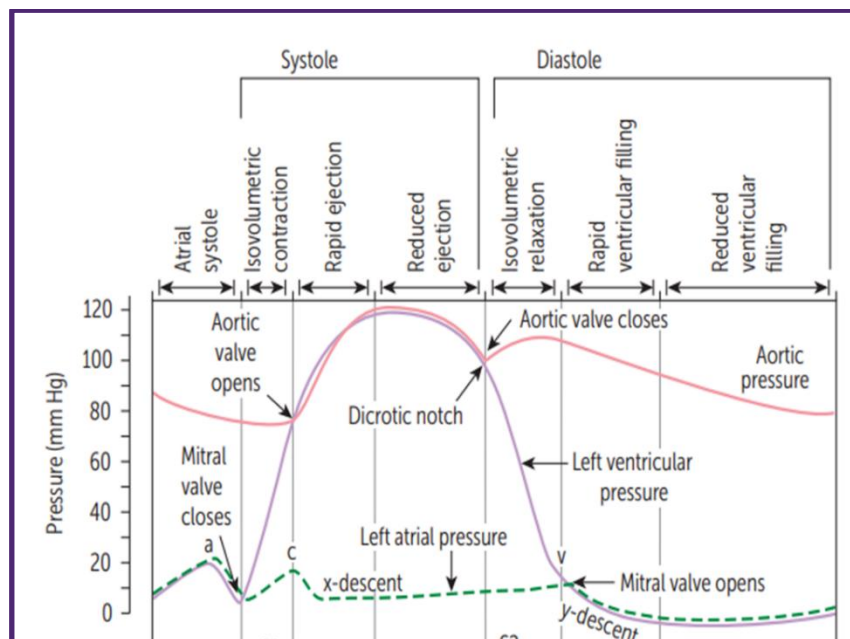


Fig B 23.1

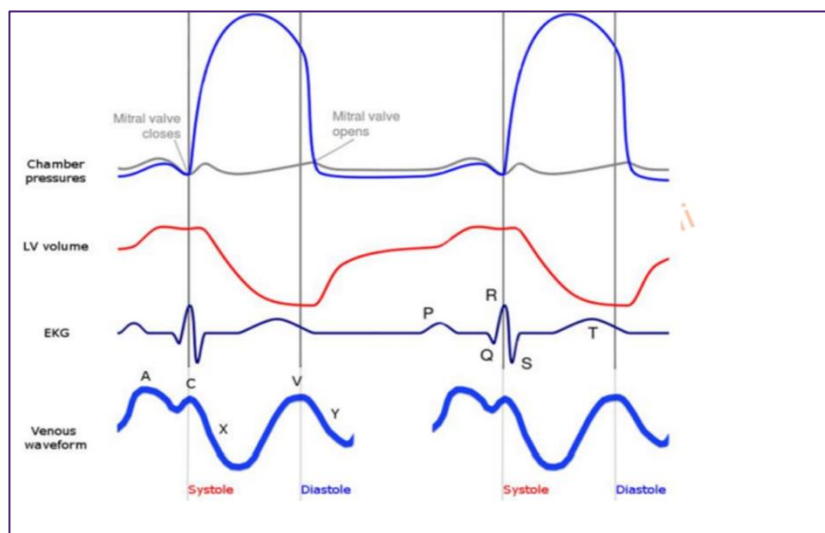


Fig B 23.2

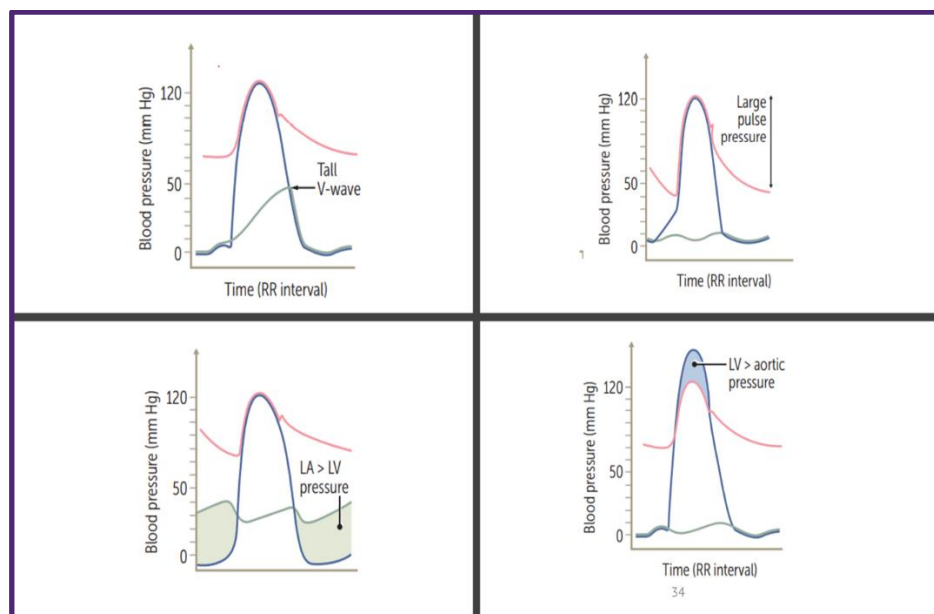


Fig B 23.3

24. PV loop

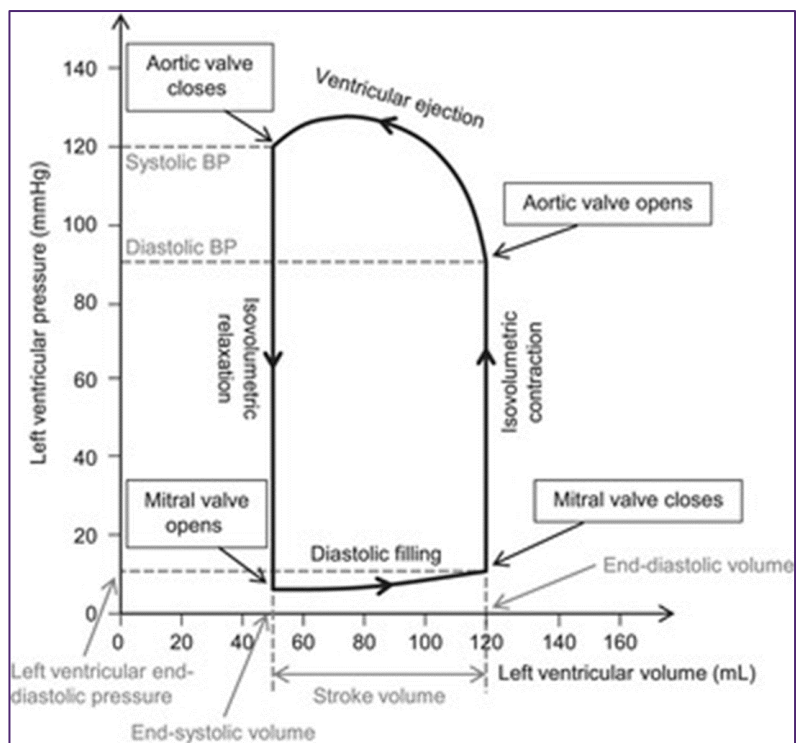


Fig: B 24.1

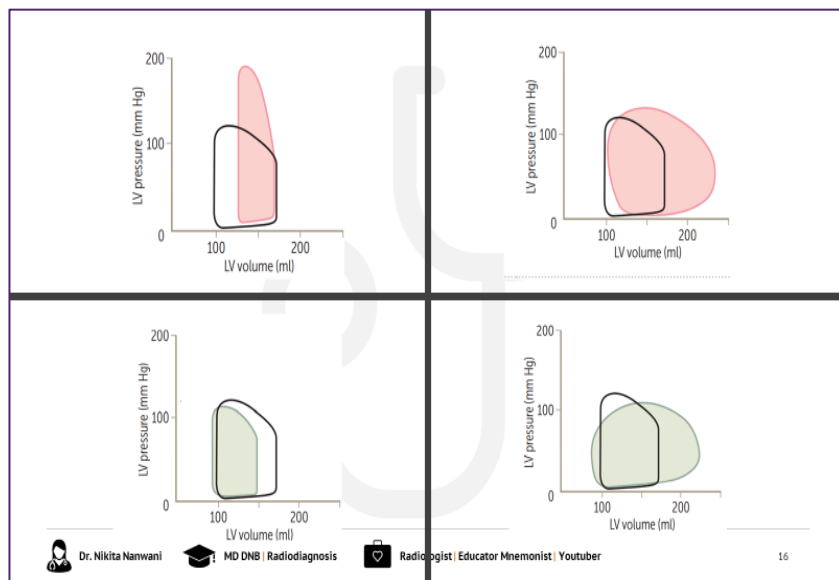


Fig: B 24.2

25. Respiratory Flow Volume Loops

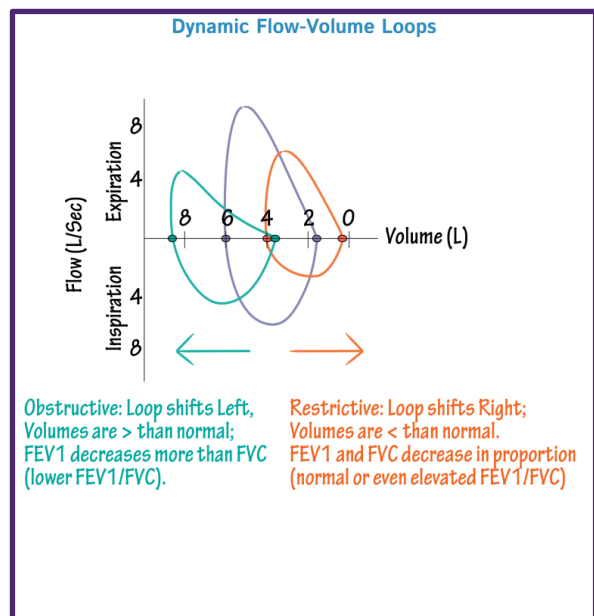
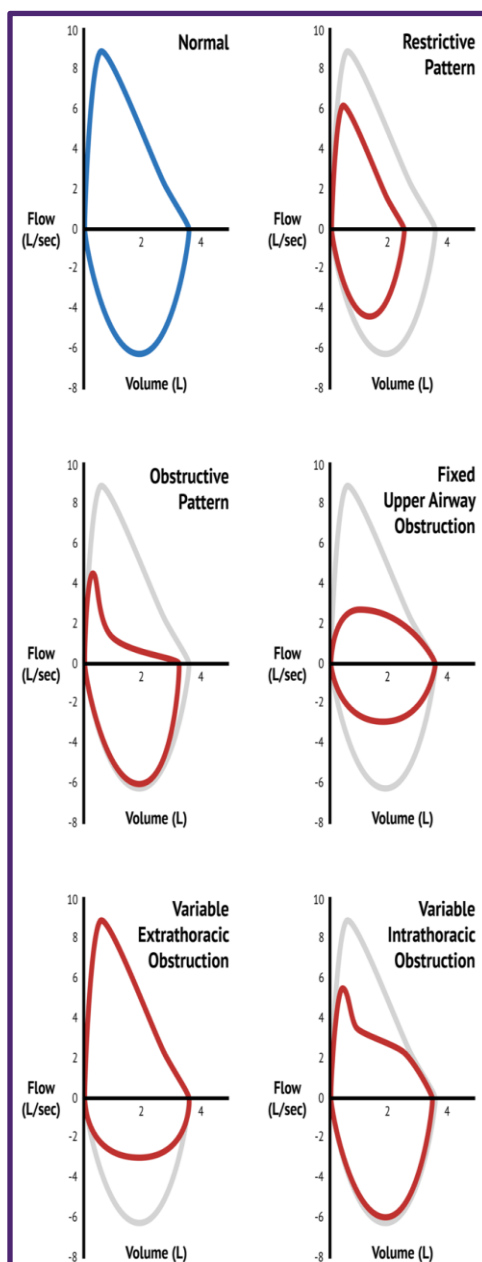


Fig B 25.1



26. Spirometry, PFT

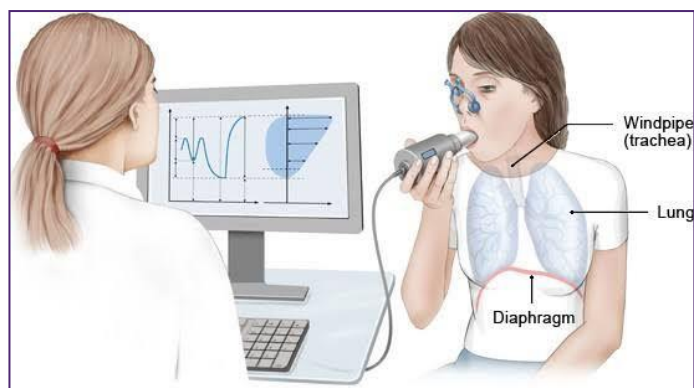


Fig: B 26.1

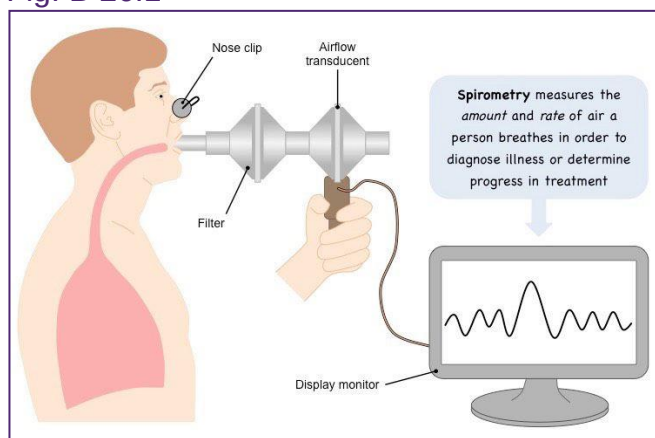


Fig: B 26.2

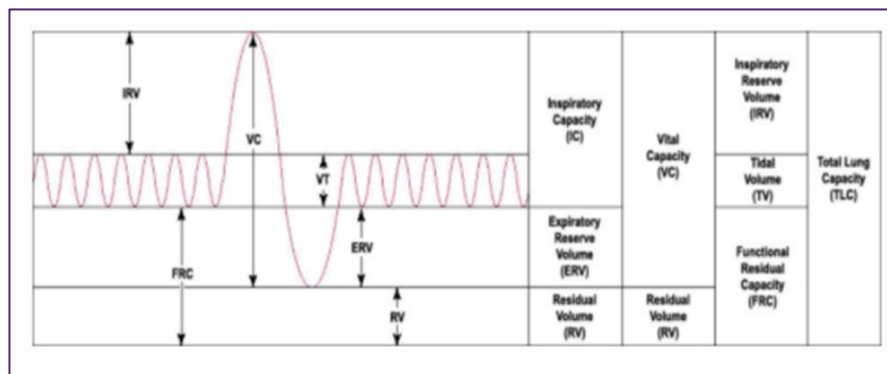


Fig: B 26.3

27. GIT Hormones

Sr. No	Hormone	Site	Actions	Stimulating factors
1	Gastrin			
2	CCK			
3	Secretin			
4	GIP			
5	Motilin			

Table: B 27.1

MAGIC NOTES

Lined area for writing notes.



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MAGIC NOTES



Biochemistry

28. Enzymes active in phosphorylated and dephosphorylated state

Phosphorylated state (Low insulin)	Dephosphorylated state (High insulin)
Fructose 2,6 bisphosphatase	Phosphofructokinase
PEP carboxy kinase	Pyruvate dehydrogenase
Pyruvate carboxylase	Glycogen synthase
Glycogen phosphorylase	Acetyl CoA carboxylase
Hormone-sensitive lipase	HMG CoA reductase

Table: 28.1

Enzyme activated by a decreased insulin glucagon ratio is

- A. Glucokinase
- B. Phosphofructokinase
- C. Glucose 6 phosphatase
- D. hexokinase

29. HSL vs LPL

	HSL	Lipoprotein lipase
Location	Adipocyte	Capillaries
Action	Hydrolyse TAG in adipose tissue	Hydrolyse Tag in chylomicron VLDL
Acts in the state of	Fasting (Glucagon)	Fed (insulin)

Table C 29.1

30. Folate Vit B12 deficiency

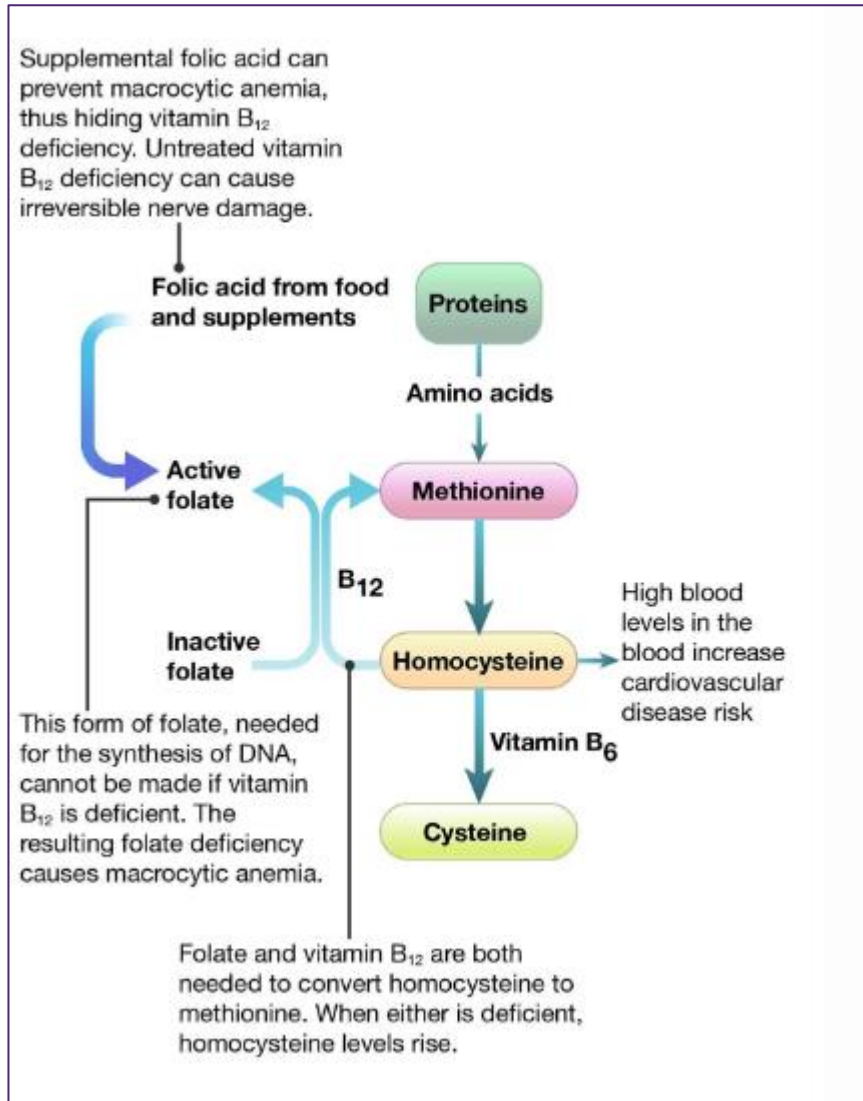


Fig C 30.1

31. Enzyme inhibition

Q- K_m increases, but V_{max} remains same. This is _____ Inhibition.

Competitive inhibitors	Non –competitive inhibitors
Succinate dehydrogenase is inhibited by Malonate	Pyruvate kinase is inhibited by alanine
Substrate & inhibitor are chemically similar & have same shape	Substrate & inhibitor are chemically not similar & have different shape
Inhibitor binds to active site	Inhibitor binds away from active site i.e., at allosteric site
Inhibitor does not change the shape of the active site	Inhibitor changes the shape of the active site
Increase in substrate concentration reduces the inhibition	Increase in substrate concentration does not affect the inhibition
V_{max} remains constant	V_{max} decreases
K_m increases	K_m remains constant

Table: C 31.1

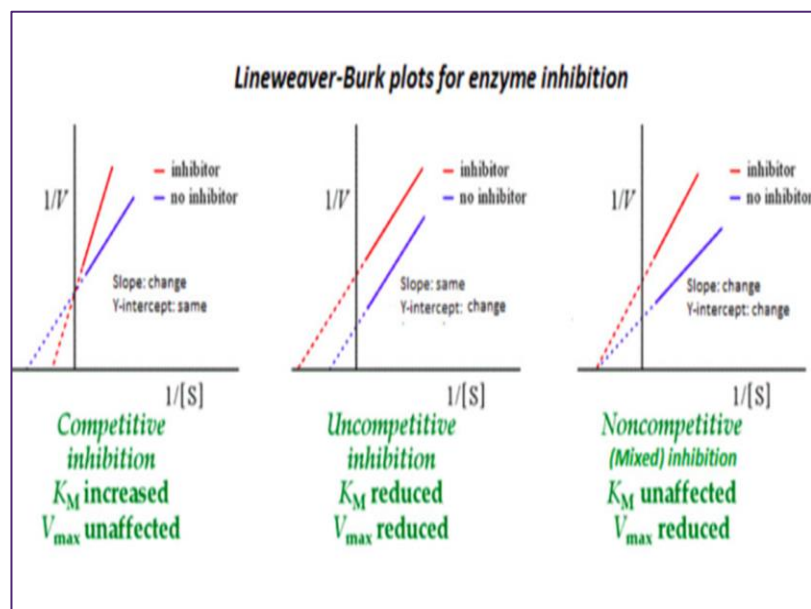


Fig C 31.1

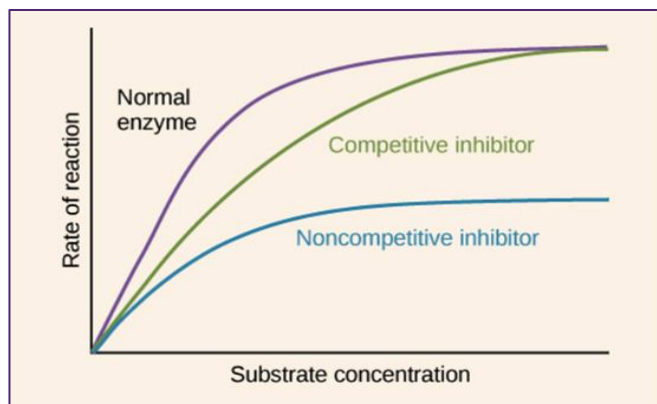


Fig C 31.2

32. Amino acid disorders

Disorder	Magic Points
Phenylketonuria	
Alkaptonuria	
MSUD	
Albinism	
Homocystinuria type I / classical	
Tyrosinemia type I / TYROSINOSIS	
Tyrosinemia type II	

Table: C 32.1

33. Pellagra



Fig C 33.1

- Diagnosis
- Vitamin deficiency -
- Diet -
- 4D -
- Derived from amino acid -
- Other conditions pellagra like -

The **toxic effects** of niacin include:

- Flushing associated with skin dryness, itching, paresthesia, and headache is seen. These effects may be seen with even a low dose of 30mg/day.
Premedication with aspirin alleviates these symptoms (as these symptoms are **mediated by prostaglandins**).
- Nausea, vomiting, and abdominal pain.
- Hepatic toxicity presents as jaundice with elevated AST and ALT levels.
- Fulminant hepatitis requiring liver transplantation.
- Glucose intolerance
- Hyperuricemia
- Macular edema and macular cysts

34. Amino acid derivatives

	Product	Derived from
1.	Tyrosine	
2.	Melanin	
3.	Melatonin	
04.	Serotonin	
5	Niacin	
6	Dopamine	
7	Nor/epinephrine	
8	GABA	
9	Glutathione	
10	Nitric oxide	
11	GABA	
12	Creatine	
13	Homocysteine	
14	Purine	
15	Pyrimidine	
16	Urea	
17	T3, T4	
18	Histamine	

Table: C 34.1

35. ETC inhibitors

Inhibitors and Uncouplers	
Table 1. Inhibitors of Respiration and Oxidative Phosphorylation	
<u>Site-Specific</u>	<u>Target Complex</u>
Carbon monoxide	IV
Cyanide	IV
Sodium Azide	IV
Rotenone	I
Antimycin A	III
Amytal	I
<u>Phosphorylation</u>	
Oligomycin	F _o
<u>Uncouplers</u>	
2,4-Dinitrophenol (DNP)	Proton gradient
Trifluorocarbonylcyanide	Proton gradient
Phenylhydrazine (FCCP)	Proton gradient

Fig C 35.1

Inhibitors of electron transport		Inhibitors of oxidative phosphorylation	
Complex I	Piercidin, Amobarbital, rotenone	Attractyloside	Inhibits ADP and ATP Transporter
Complex II	TTFA, Carboxin, Malonate	Oligomycin	Blocks flow of protons through F _o Complex
Complex III	BAL, Antimycin A		
Complex IV	Hydrogen Sulphide, Carbon Monoxide, Cyanide		

Table: C 35.1

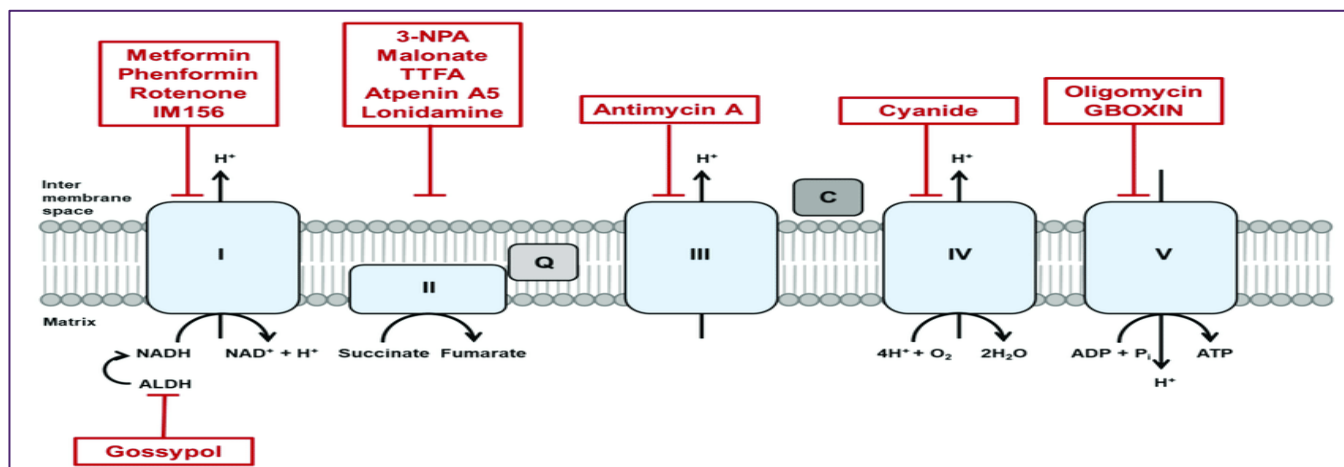


Fig C 35.2

- Barbiturates(Phenobarbitone) and Rotenone
- Malonate
- Cyanide, carbon monoxide, azide, hydrogen sulphide
- Oligomycin

36. Inhibitors of glycolysis and TCA

Inhibitors of glycolysis		Inhibitors of TCA Cycle	
Agent	Enzyme	Agent	Enzyme
Iodoacetate	Gyceraldehyde 3-phosphate dehydrogenase	Fluoracetate	Aconitase
Arsenate	Phosphoglycerate kinase	Arsenite	α - ketoglutarate dehydrogenase
Fluoride	Enolase	Malonate	Succinate dehydrogenase

Table: C 36.1

37. Enzyme cofactors

Manganese	Mitochondrial superoxide dismutase Enolase Arginase Hexokinase Phosphofructokinase Ribonucleotide reductase	Magnesium	Phosphofructokinase Hexokinase Glucose-6 Phosphatase Mutase Enolase
Zinc	Carbonic anhydrase Carboxypeptidase Alcohol dehydrogenase Alkaline phosphatase ALA dehydratase Lactate dehydrogenase	Copper	Cytosolic superoxide dismutase Tyrosinase Cyt C oxidase Lysyl oxidase Amino acid oxidase
Selenium	Glutathione peroxidase Thioredoxin reductase De-iodinase	Molybdenum	Dinitrogenase Xanthine oxidase Sulfite oxidase
Iron	Succinate dehydrogenase		
Calcium	Lipase Lecithinase		
Nickel	urease		

Table : C 37.1

38. Rate limiting enzymes

	Pathway	Magic points
1	Glycogenesis	
2	Glycogenolysis	
3	Glycolysis	
4	Gluconeogenesis	
5	TCA /Kreb cycle	
6	HMP pathway	
7	Urea cycle	
8	De novo pyrimidine synthesis	
9	De novo purine synthesis	
10	Fatty acid synthesis	
11	Fatty acid oxidation	
12	Cholesterol synthesis	
13	Ketone body synthesis	
14	Uric acid synthesis	
15	Bile acid synthesis	
16	Heme synthesis	

Table: C 38.1

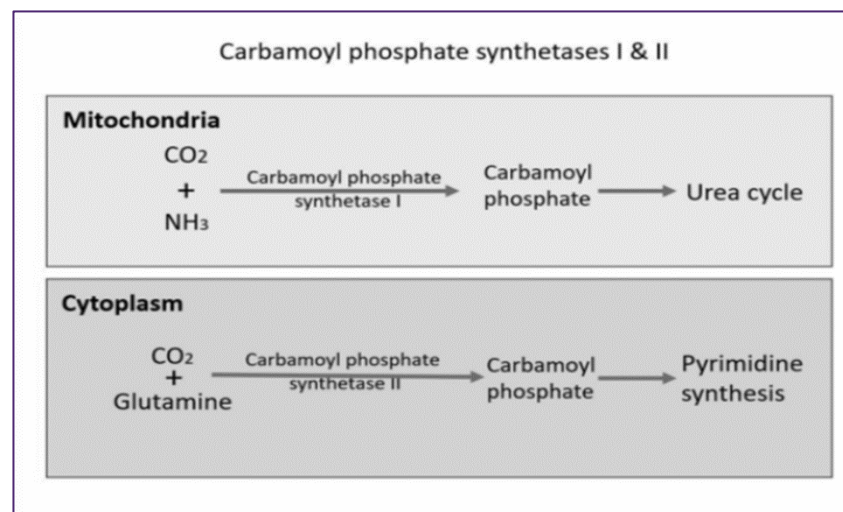


Fig C 38.1

39. DNA polymerase

Bacterial DNA Polymerase –at a Glance

- Main replication DNA polymerase is DNA polymerase III
- DNA Polymerase with highest rate of chain elongation (most processive) is Pol III
- DNA Polymerase proofreading activity : Pol I, Pol II and Pol III
- DNA Polymerase with repair activity: Pol I and Pol II
- DNA Polymerase which fills the gap in the lagging strand is Pol I
- DNA Polymerase which polymerises Okazaki fragments Pol III
- DNA Polymerase which synthesizes leading strand Pol III

Eukaryotic DNA polymerases:

Eukaryotic DNA Polymerases	Functions	Proofreading
α	Primase (initiates DNA synthesis)	-
β	DNA repair	-
γ	Mitochondrial DNA Synthesis	+
δ	Mitochondrial DNA synthesis	+
ϵ	Processive, leading Strand synthesis	+

Table C 39.1

40. Vitamins

Sr No	Vitamin	Magic points
1	B1	
2	B2	
3	B3	
4	B5	
5	B6	
6	B9	
7	B12	
8	C	
9	A	
10	D	
11	E	
12	K	

Table: C 40.1



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41. Vitamin assays

Vitamin	Assay and test
Vitamin B1	RBC trans- ketolase
Vitamin B2(riboflavin)	RBC Glutathione reductase
Vitamin B6 (Pyridoxine)	RBC transaminase
Vitamin B9(Folic acid)	FIGLU excretion/Histidine load test
Vitamin B12(cobalamine)	Serum methyl malonate level

Fig C 41.1

42. Glycogen storage disorders

	Mnemonic	Disorder	Enzyme	Magic points
I				
II				
III				
IV				
V				
VI				
VII				

Table: C 42.1

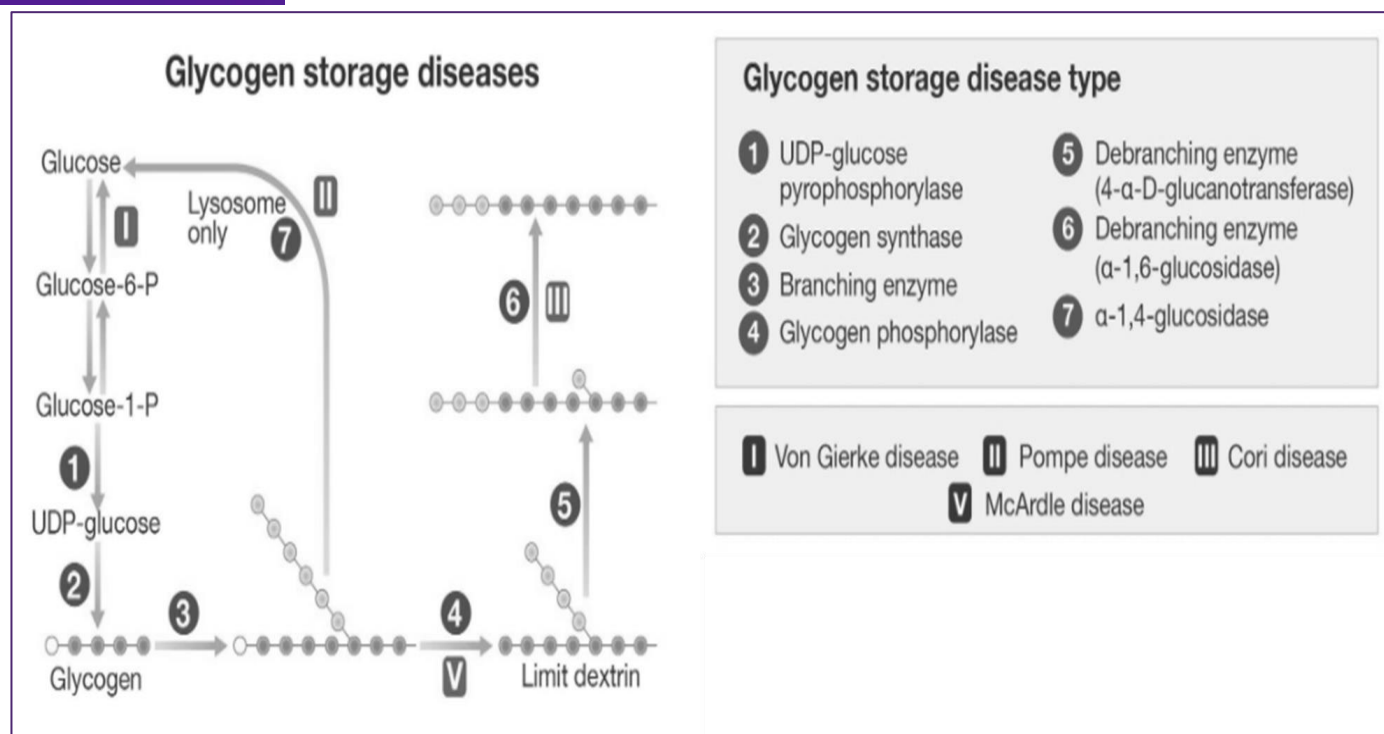


Fig C 42.1

43. Lysosomal storage disorders

Sr. no	Disorder	Enzyme Deficiency	Magic points
1	Gauchers		
2	Niemann Picks		
3	Tay Sachs		
4	Fabry		
5	Krabbe		
6	Metachromatic leukodystrophy		

Table : C 43.1

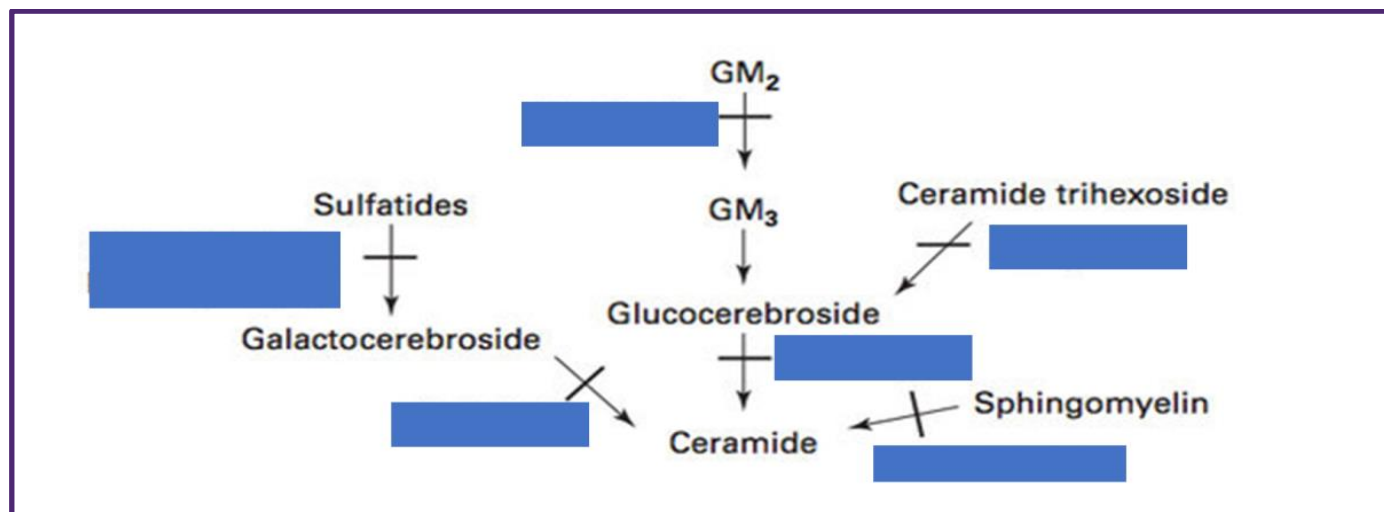


Fig C 43.1

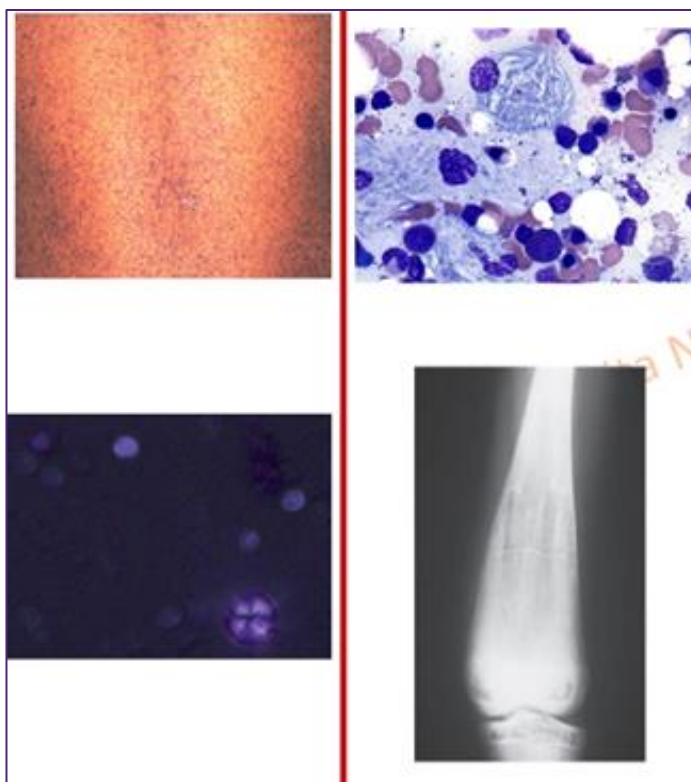


Fig C 43.2

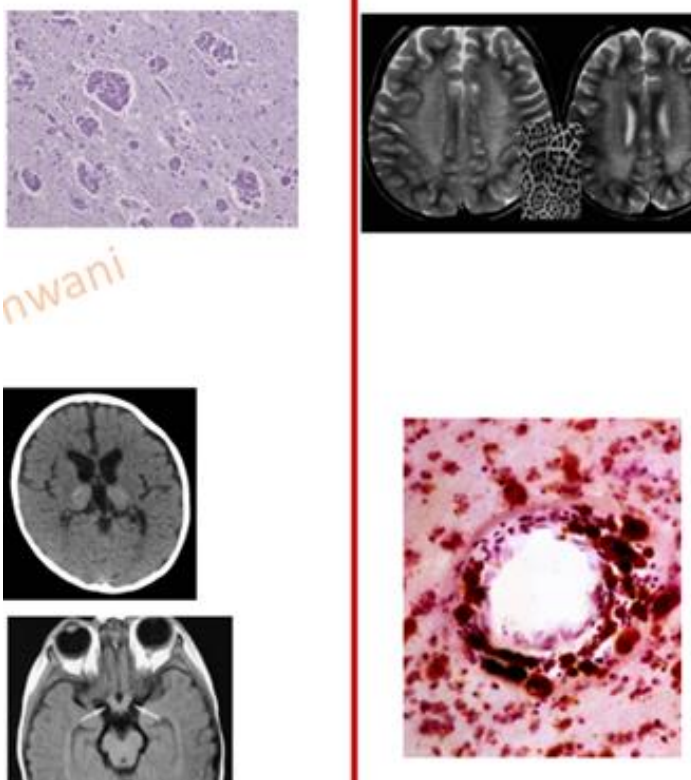


Fig C 43.3

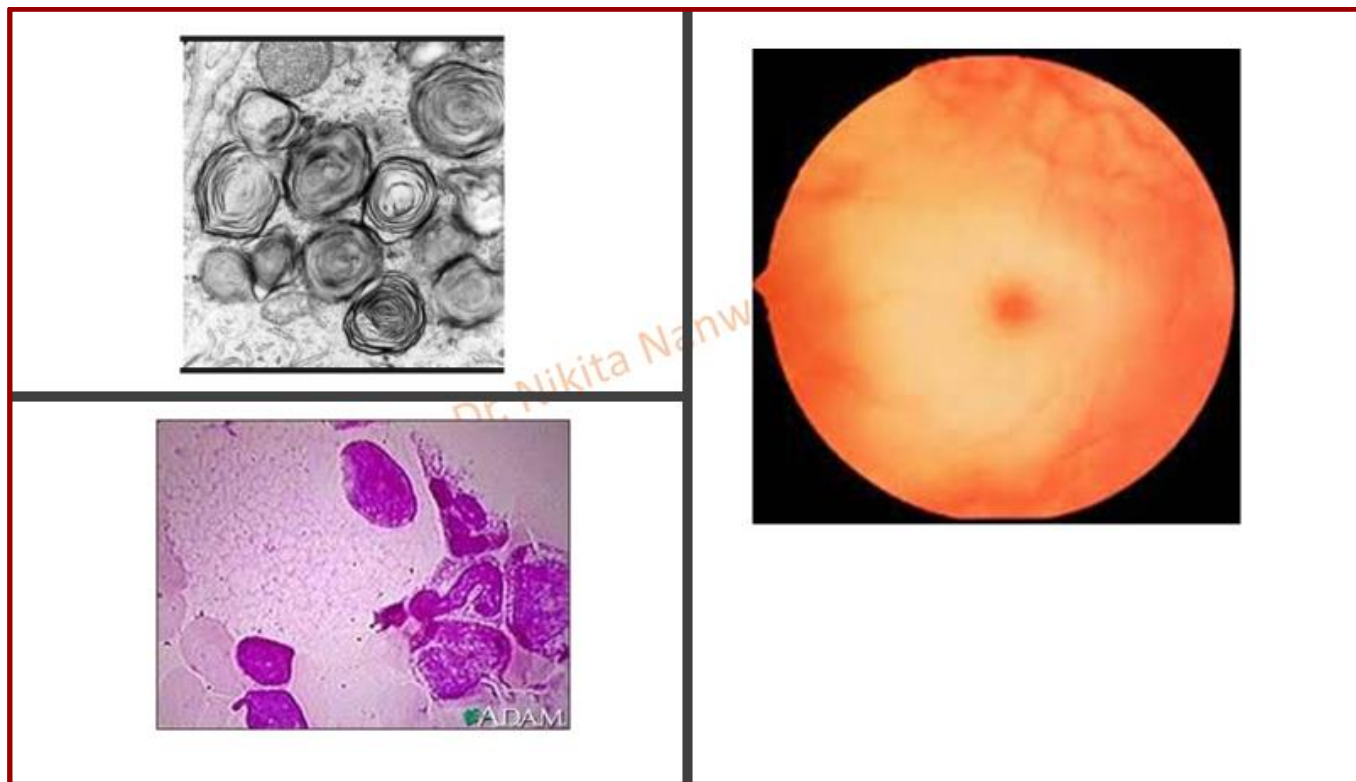


Fig C 43.4

44. Molecular Biology





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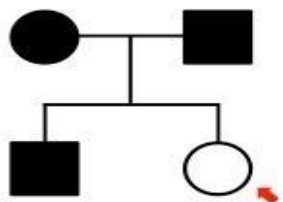
PATHOLOGY

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45. AD/AR/XLR/XLD diseases

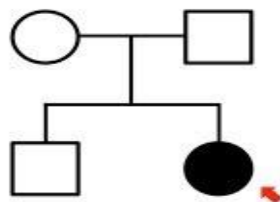
AUTOSOMAL DOMINANT



Cannot be recessive as two affected parents could **not** have an unaffected offspring

Parents **MUST** be heterozygous

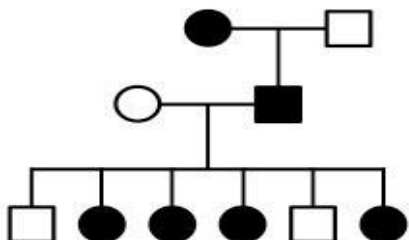
AUTOSOMAL RECESSIVE



Cannot be dominant as two unaffected parents could **not** have an affected offspring

Parents **MUST** be heterozygous

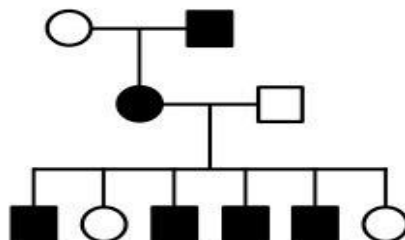
X-LINKED DOMINANT



Sex linkage cannot be confirmed

100% incidence of affected daughters from an affected father *suggests* X-linked dominance

X-LINKED RECESSIVE



Sex linkage cannot be confirmed

100% incidence of affected sons from an affected mother *suggests* X-linked recessive



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46. Trinucleotide repeat disorders

Disease	TNR	C/f	Chromosome
Huntington’s chorea			
Fragile X			
Myotonic dystrophy			
Friedrich ataxia			

Table D 46.1

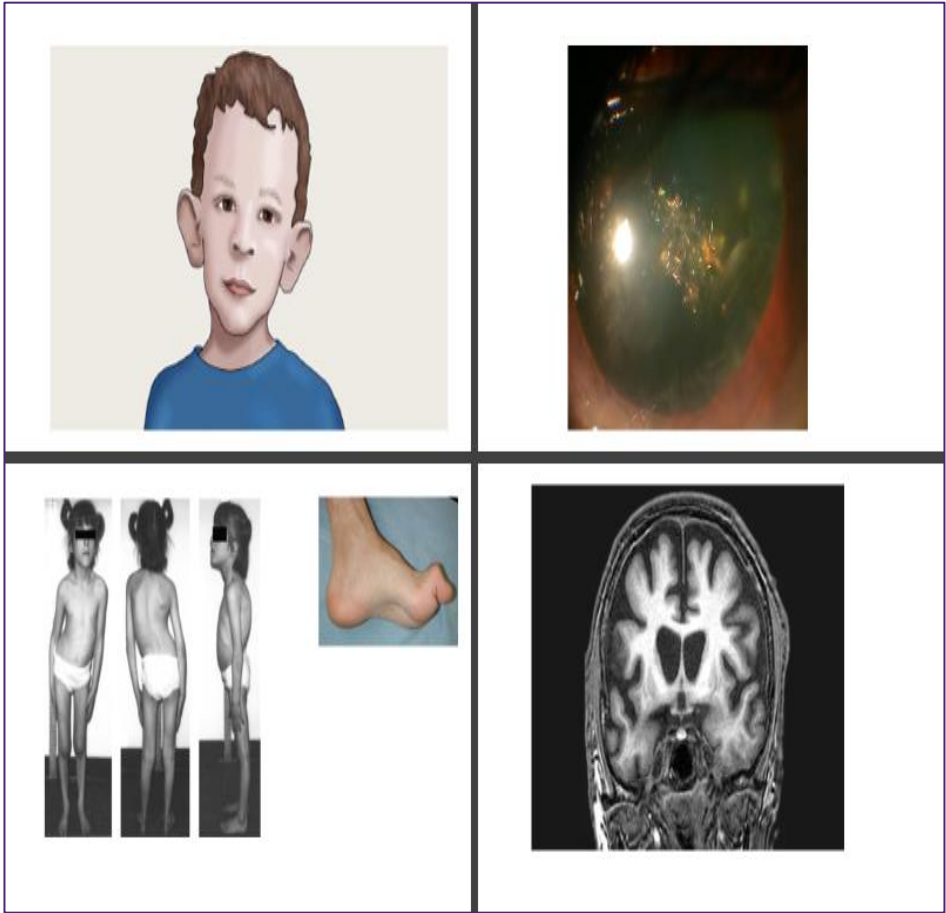
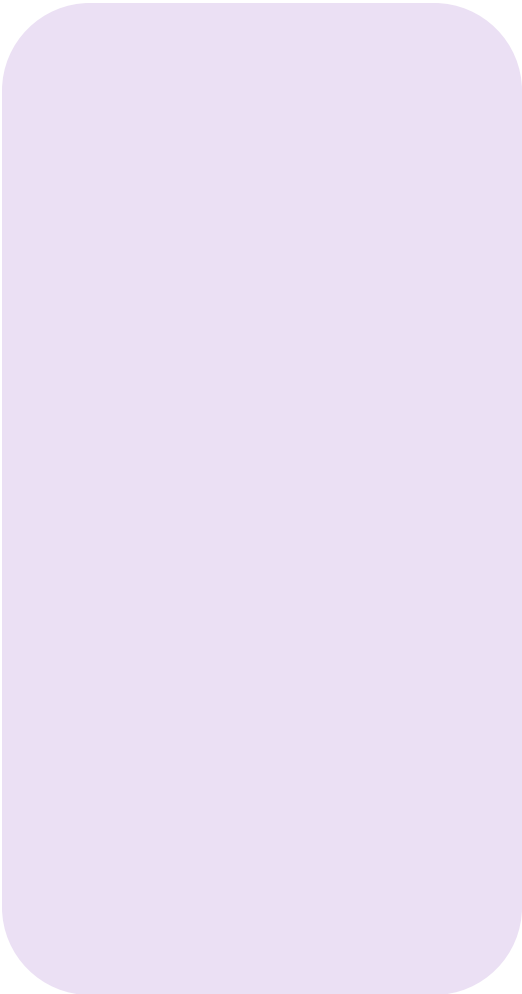


Fig D 46.1



47. Anemia

RDW is a measure of - anisocytosis

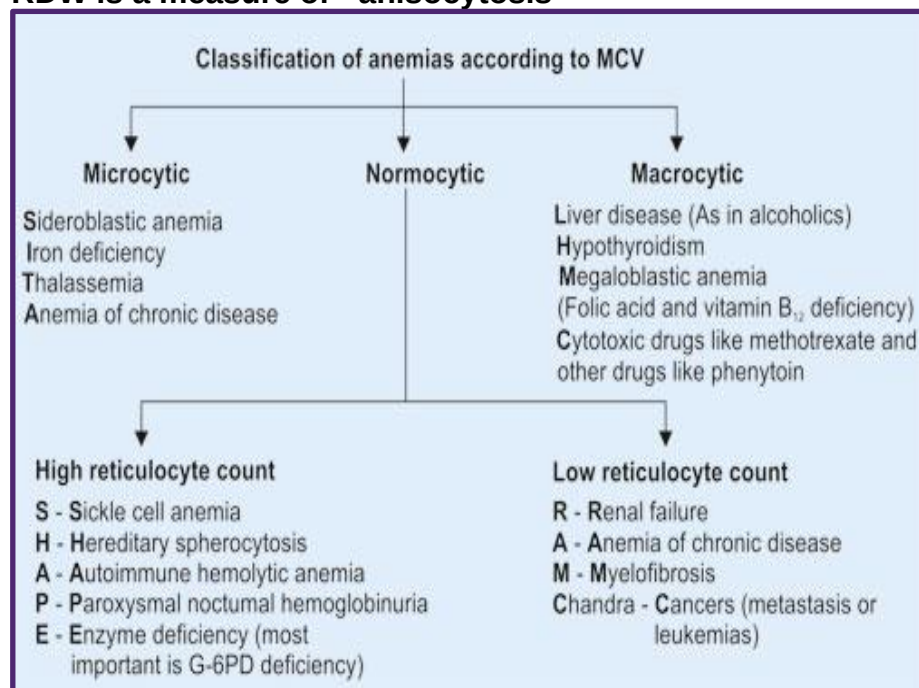


Fig D 47.1

Table 4. Laboratory Tests in the Differential Diagnosis of Microcytosis

Test	Suggested diagnosis			
	Iron deficiency anemia	Thalassemia	Anemia of chronic disease	Sideroblastic anemia
Serum ferritin level	Decreased	Increased	Normal to increased	Normal to increased
Red blood cell distribution width	Increased	Normal to increased	Normal	Increased
Serum iron level	Decreased	Normal to increased	Normal to decreased	Normal to increased
Total iron-binding capacity	Increased	Normal	Slightly decreased	Normal
Transferrin saturation	Decreased	Normal to increased	Normal to slightly decreased	Normal to increased

Fig D 47.2

48. CD markers

1	Stem cell marker	
2	Leucocyte common antigen	
3	Memory cell	
4	Fas receptor /Apoptosis	
5	Signalling component of T cell receptor (TCR) complex	
6	CALLA	
7	Pan B cell	
8	Pan T cell	
9	Plasma cell	
10	Helper T cell	
11	Cytotoxic T cell	
12	NK cells	
13	Megakaryocyte	
14	Myeloid lineage	
15	Macrophage –monocyte	
16	Best for Plasma cell	
17	T regulatory cell	
18	Fc receptor for Ig on NK cells	
19	Beta integrins	
20	Ewings sarcoma	
21	Granulosa cell tumor	
22	GIST	
23	LCH	
24	CLL/SLL	
25	Mantle cell lymphoma	
26	Hairy cell leukemia	
27	Reed Sternberg cells	
28	Popcorn cells	
29	Causes isotype switching	
30	CTLA-4 IS	
31	CTLA-4 is similar to	
32	CTLA-4 binds to	
33	IL-2 Receptor alpha (IL2RA)	
34	ITGB2 gene	
35	Costimulatory on T cells	
36	Costimulatory on APC ,	
37	EBV receptor	
38	PNH	
39	Wiskott Aldrich syndrome	
40	Hyper IgM syndrome	

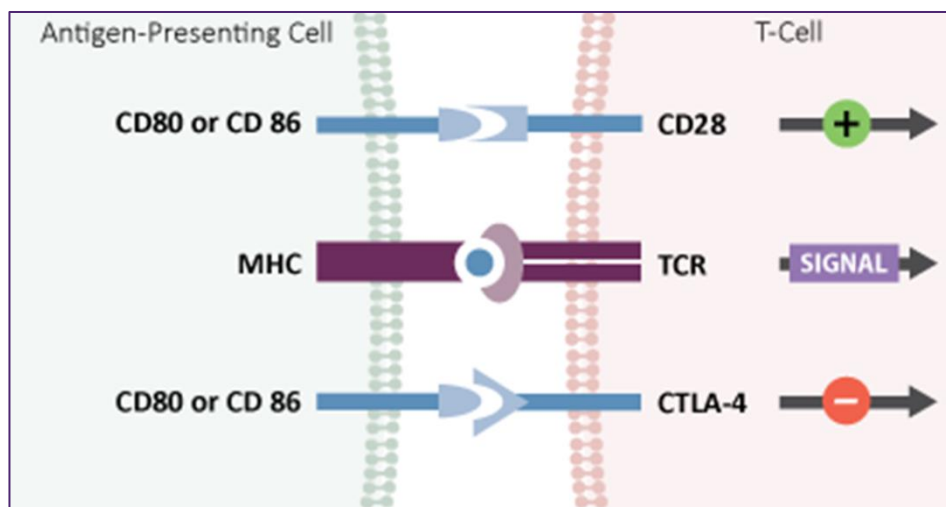


Fig C 48

49. Lymphoma

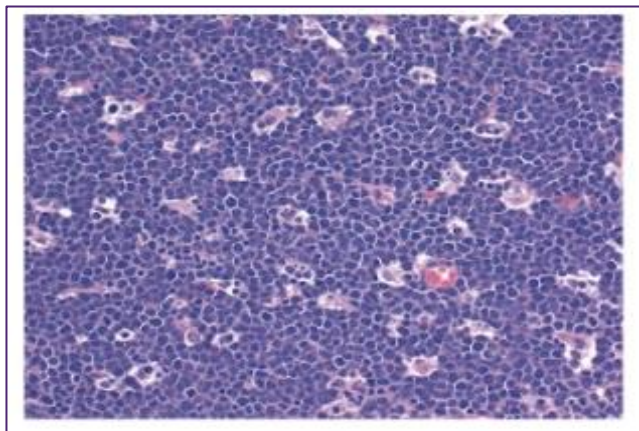


Fig: D 49.1

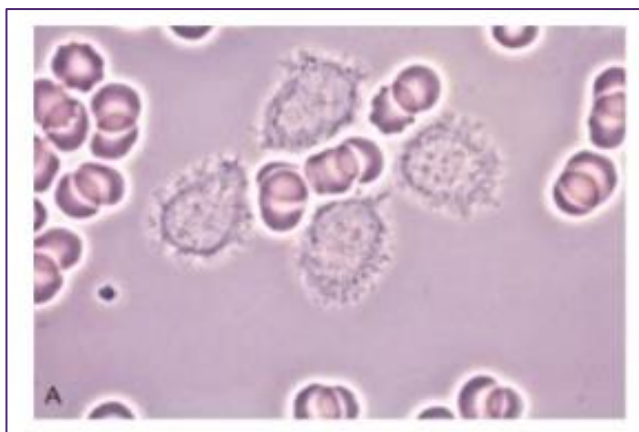


Fig: D 49.2

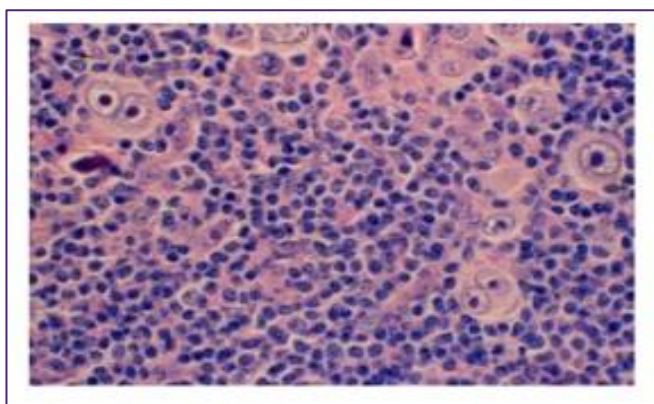


Fig: D 49.3

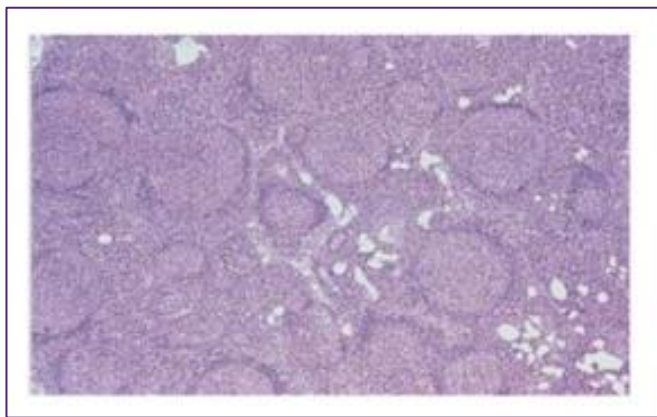


Fig: D 49.4

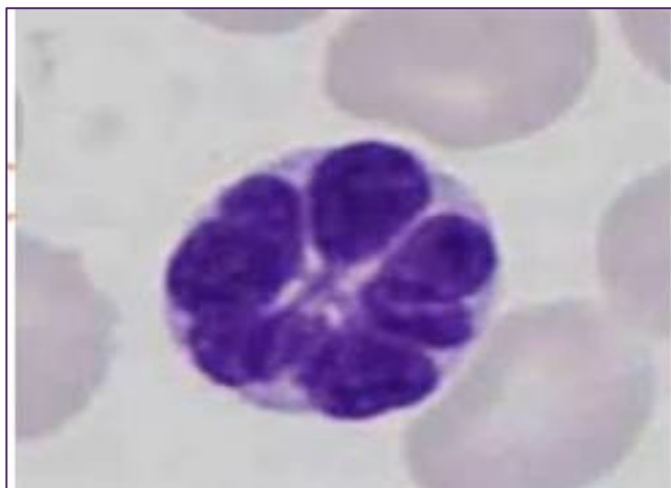


Fig: D 49.5

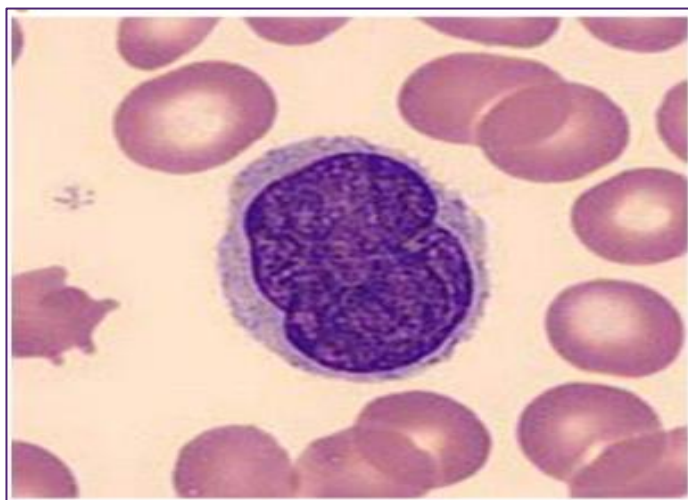


Fig: D 49.6

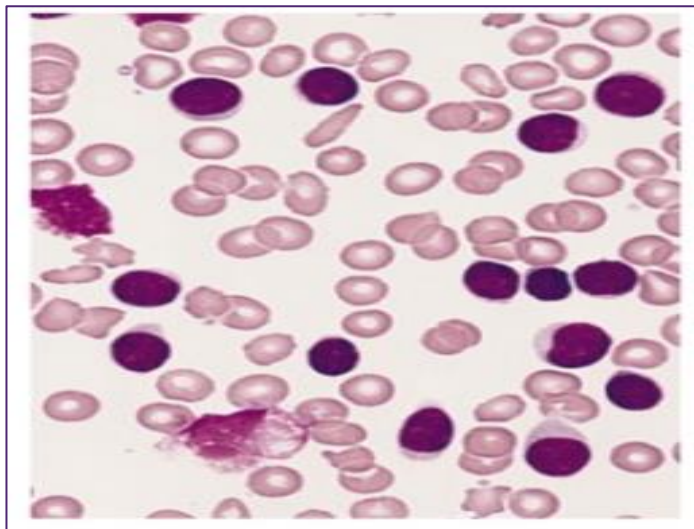


Fig: D 49.7

50. Renal deposits

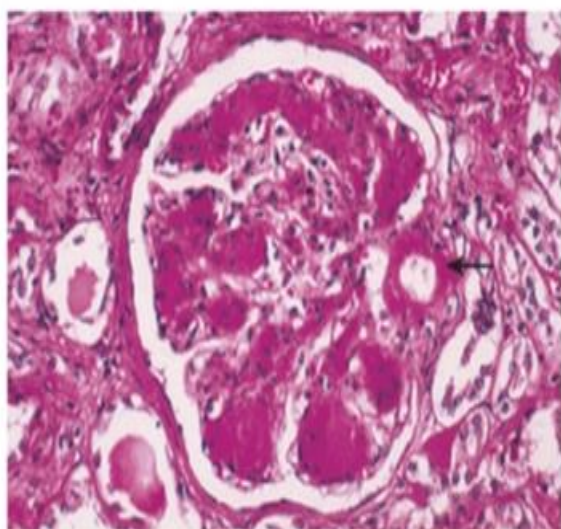
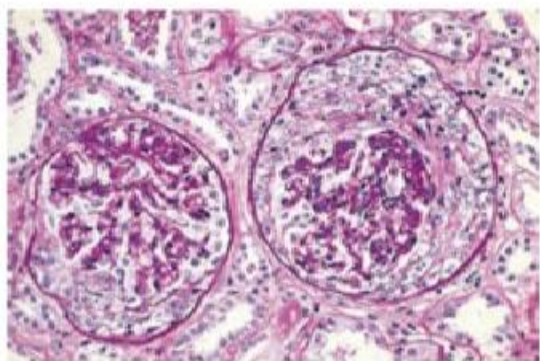
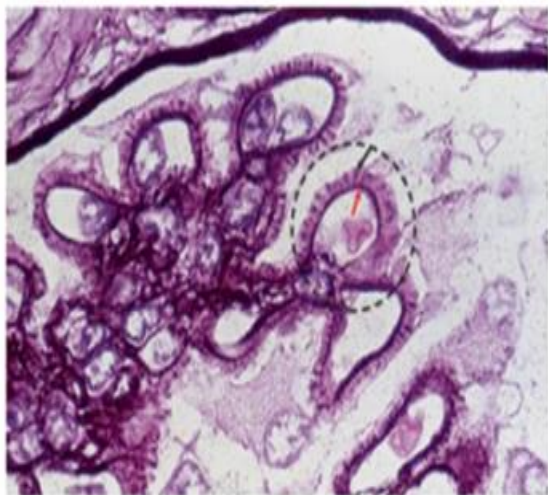


Fig: D 50.1

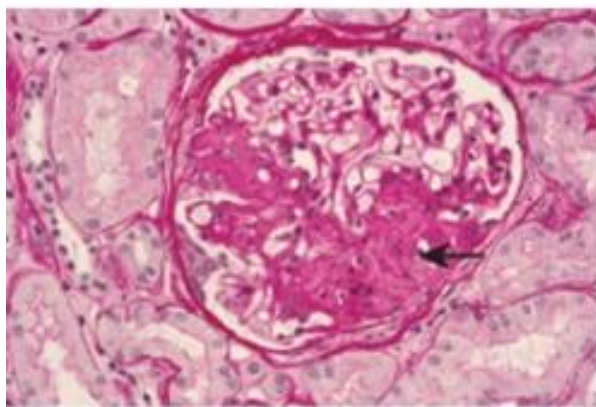
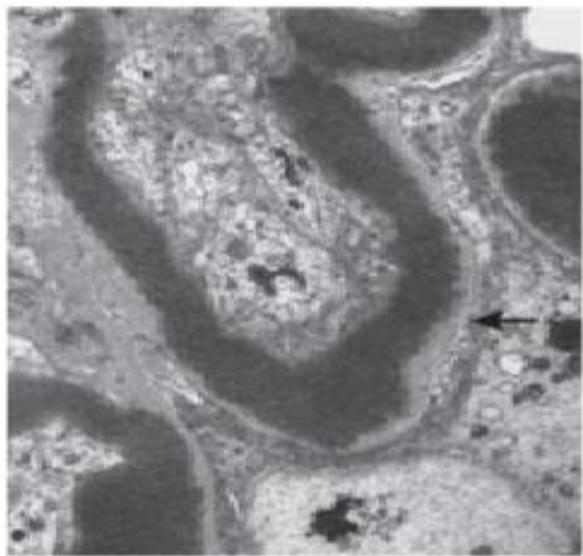


Fig: D 50.2

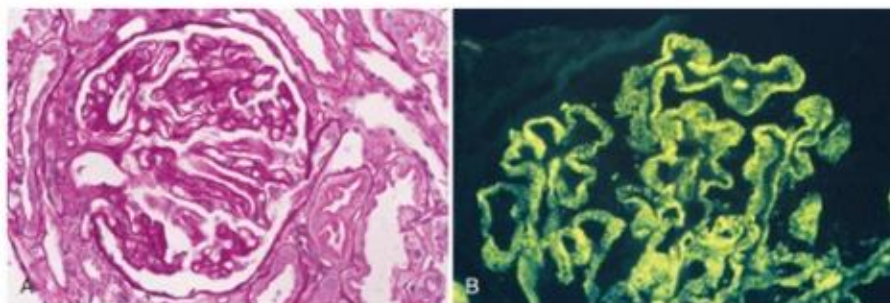


Fig: D 50.3

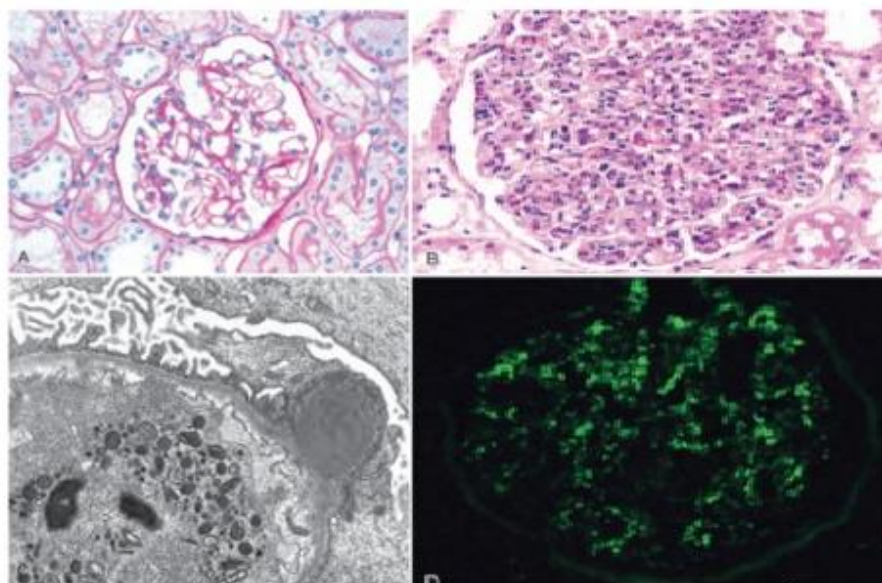


Fig: D 50.4

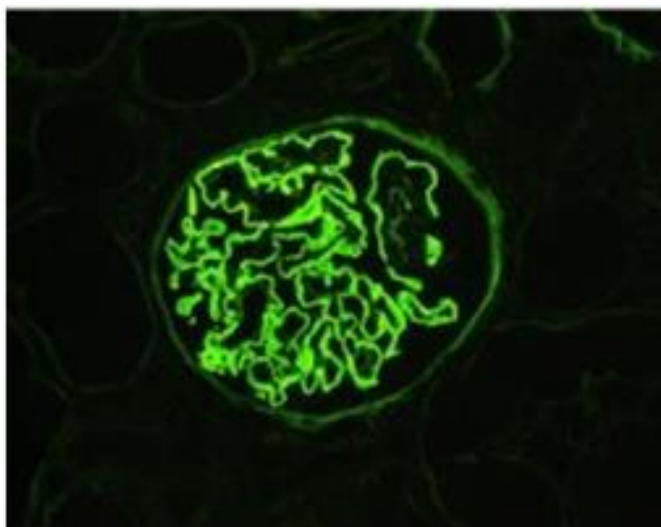
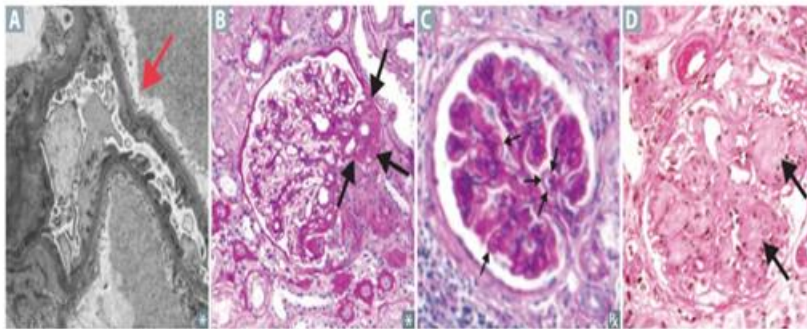
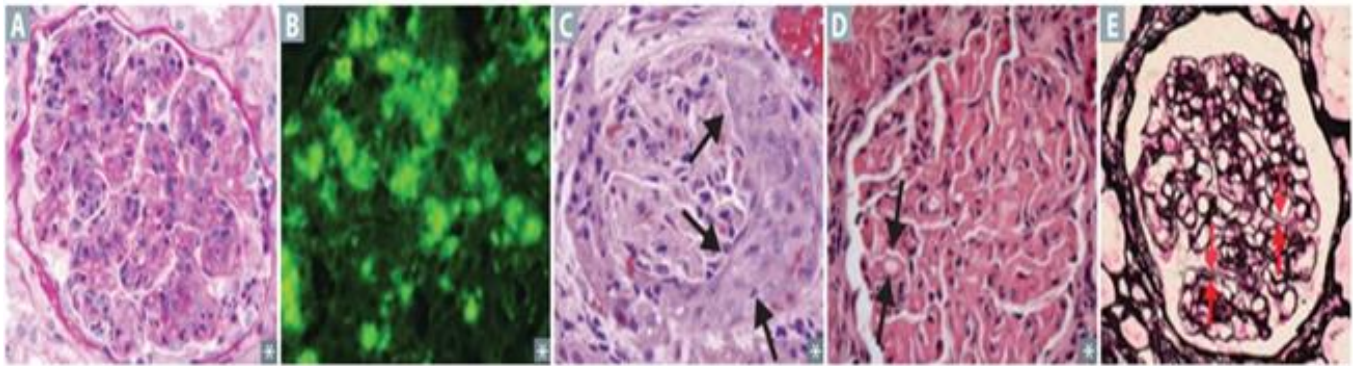


Fig: D 50.5



51. Hypersensitivity reactions

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Pharmacology

52. Cyp 450 -inducers & inhibitors

Enzyme inducers	Mnemonic
Carbamazepine	
Barbiturates (Phenobarbitone)	
Griseofulvin	
Phenytoin	
Rifampicin	
Smoking	
St John's wort	
Chronic alcohol	

Enzyme inhibitors	Mnemonic
INH	
Cimetidine	
Ciprofloxacin	
Omeprazole	
Erythromycin	
Chloramphenicol	
Ketoconazole	
Amiodarone	
Metronidazole	
Sulfonamides	
Ritonavir	
Acute alcohol	
Grape fruit juice	
Valproate	

Table : E 52.1

- Substrates -
 - OCPs
 - Warfarin
 - Theophylline
 - Anti epileptics

53. Glaucoma drugs

Drug	Side Effects
alpha agonist	
beta blocker	
carbonic anhydrase inhibitor	
Miotics (cholinergic eg pilocarpine)	
PGF2 alpha analogues (Latanoprost)	
Brimonidine	
apraclonidine	
dipivefrine	

Table: E 53.1

54. DM drugs

S/E DM drugs	Drug
Vit b12 deficiency	
MI	
Fluid retention	
Pancreatitis	
Medullary thyroid cancer	
Lactic acidosis	
Disulfiram reaction	
Cholestatic jaundice	
Increase ADH	
Nasopharyngitis	
Flatulence, dx, abd cramp	
UTI	
Urinary bladder carcinoma	

Table: E 54.1

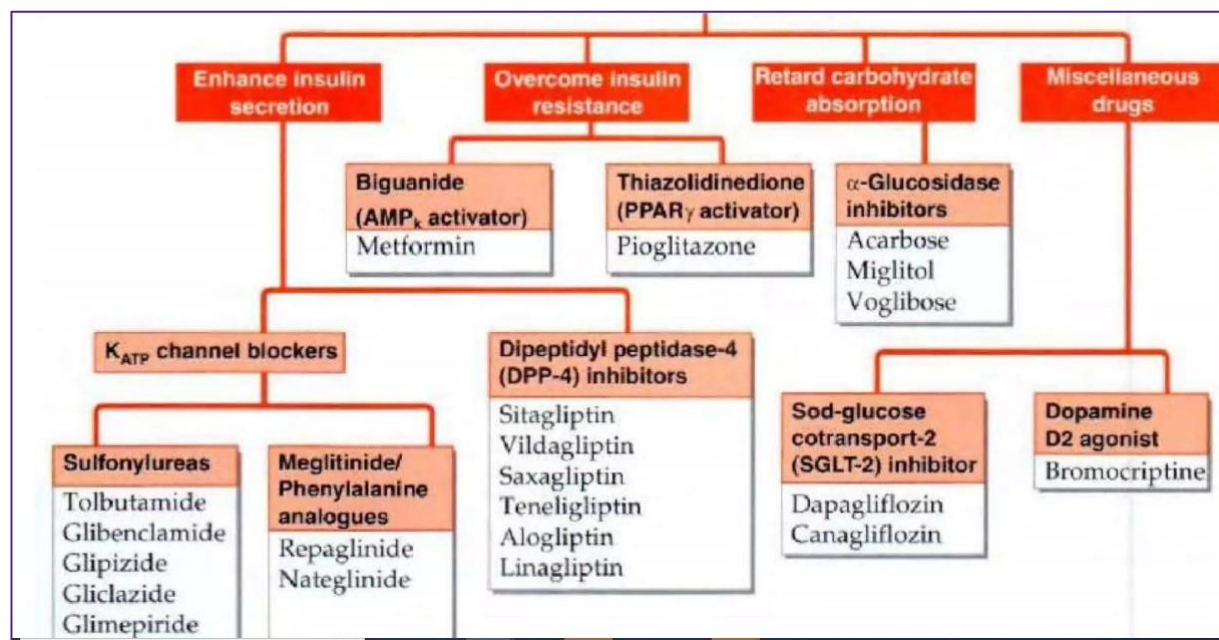


Fig: E 54.1

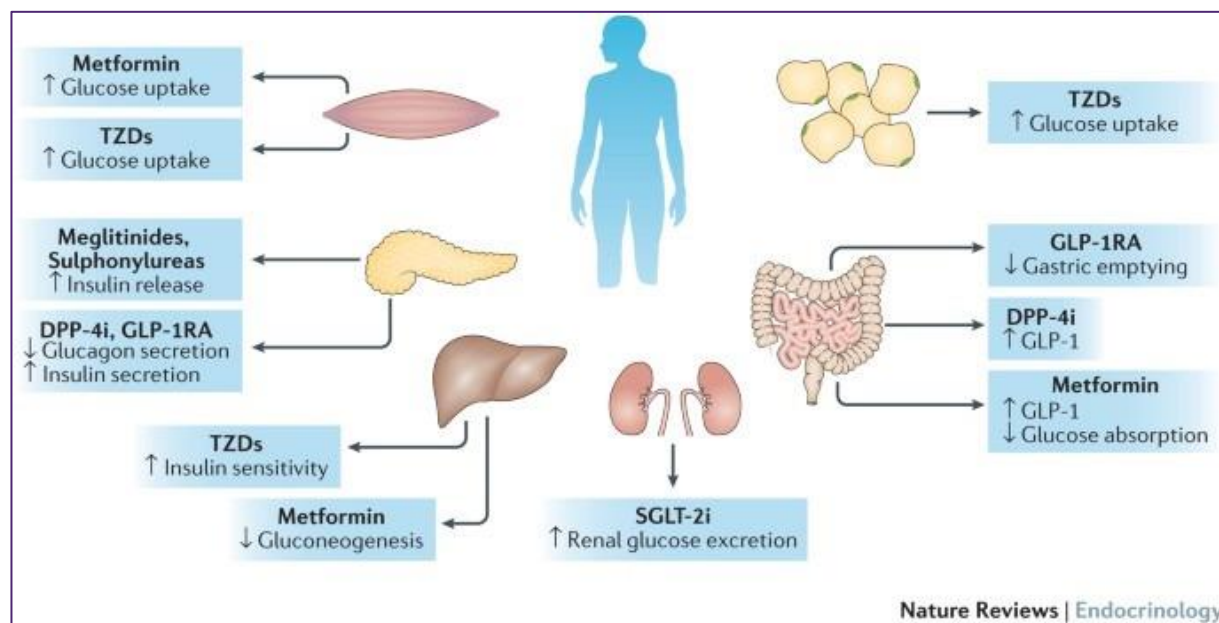


Fig: E 54.2

55. Vd & clearance

Low apparent volume of distribution indicates

- A. Low $t_{1/2}$
- B. Low efficacy
- C. Low bioavailability
- D. Not extensively distributed to tissues

PK Equations

Single-Dose Equations

(1) Volume of distribution (V_d) $V_d = \frac{D}{C^0}$

(2) Half-life ($t_{1/2}$) $t_{1/2} = 0.7 \times \frac{V_d}{Cl}$

Multiple Doses or Infusion Rate Equations

(3) Infusion rate (k_0) $k_0 = Cl \times C^{ss}$

(4) Loading dose (LD) $LD = \frac{V_d \times C_p}{f}$

(5) Maintenance dose (MD) $MD = \frac{Cl \times C^{ss} \times \tau}{f}$

Abbreviations:

C^0 = conc. at time zero

Cl = clearance

C_p = conc. in plasma

C^{ss} = steady state conc.

D = dose

f = bioavailability

k_0 = infusion rate

LD = loading dose

MD = maintenance dose

τ = dosing interval

V_d = volume of distribution

30

Fig: E 55.1

56. Graphs - General Pharmacology

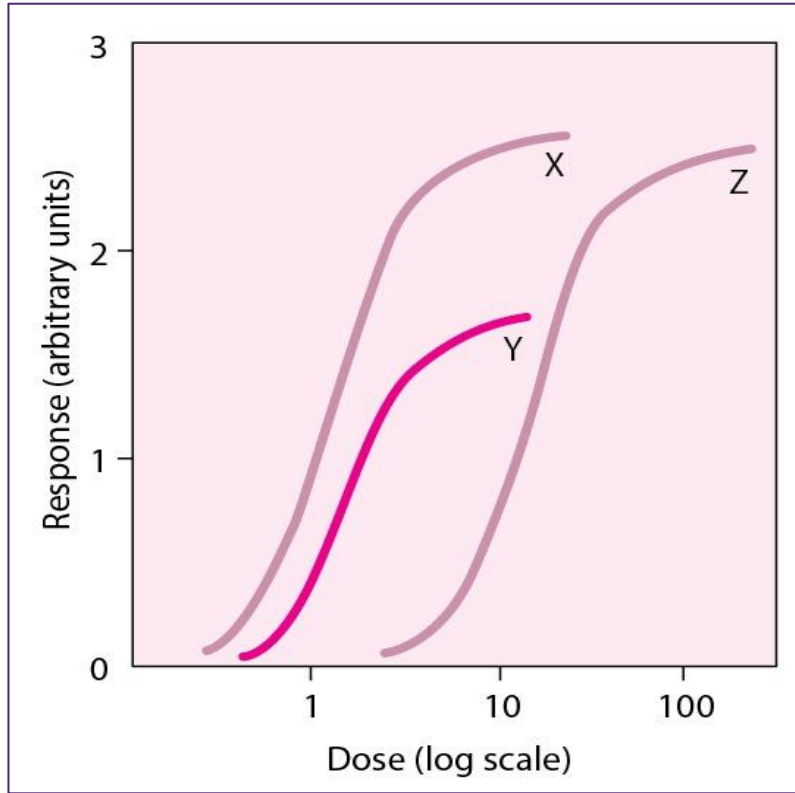


Fig: E 56.1

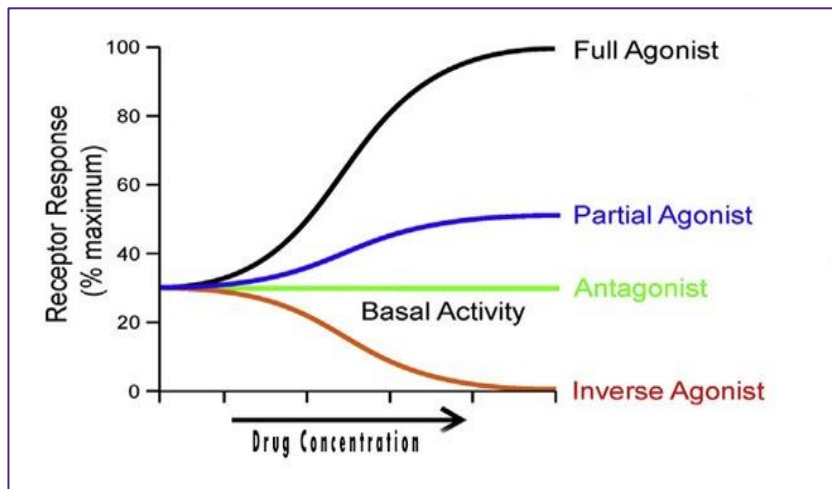


Fig: E 56.2

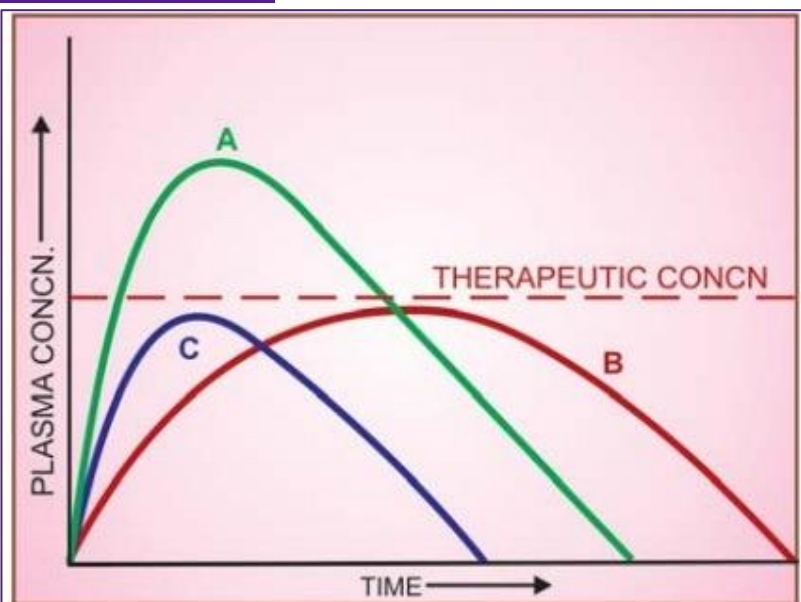


Fig. 2.6: Plasma concentration-time curves depicting bioavailability differences between three preparations of a drug containing the same amount
 Note that formulation *B* is more slowly absorbed than *A*, and though ultimately both are absorbed to the same extent (area under the curve same), *B* may not produce therapeutic effect; *C* is absorbed to a lesser extent—lower bioavailability

Fig: E 56.3

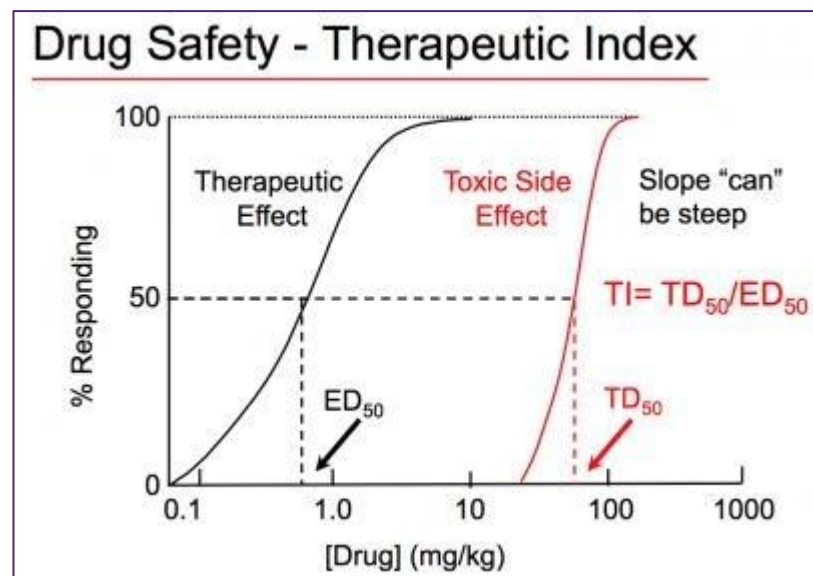


Fig: E 56.4

57. Antifungal drugs

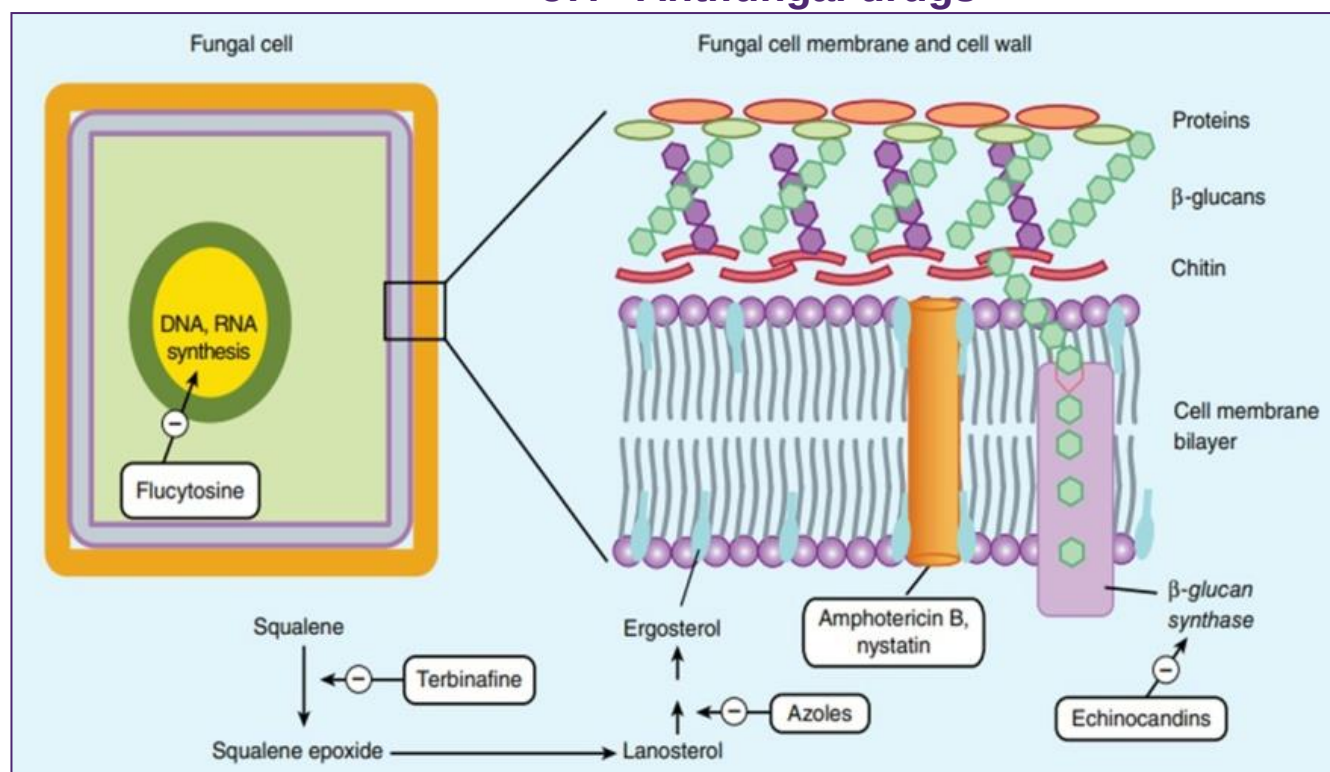


Fig: E 57.1

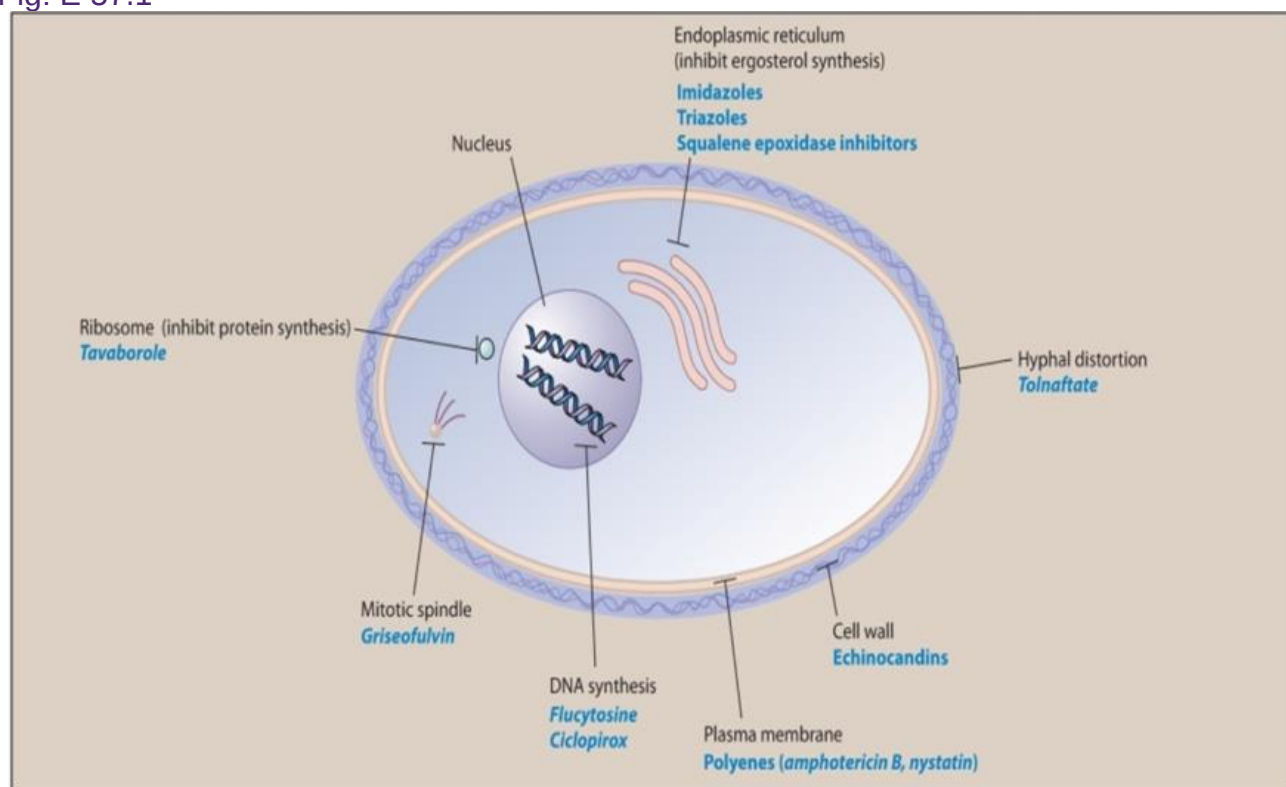


Fig E 57.2

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58 Anti TR drugs

59. Anticancer drugs

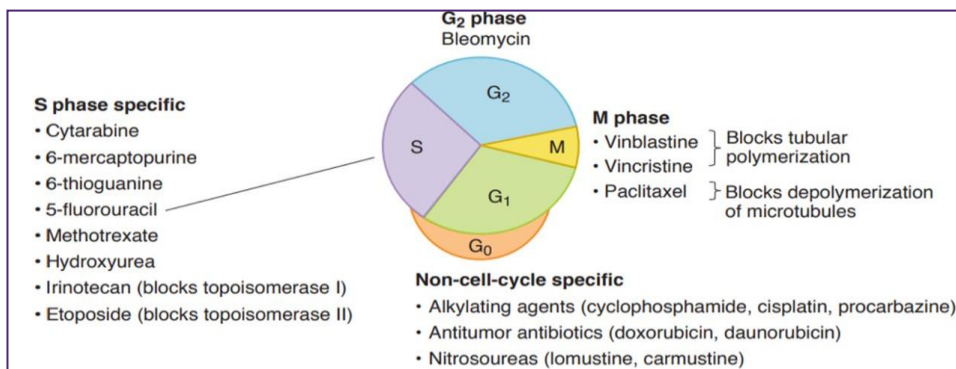


Fig: E 59.1



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60. Antimicrobials MOA

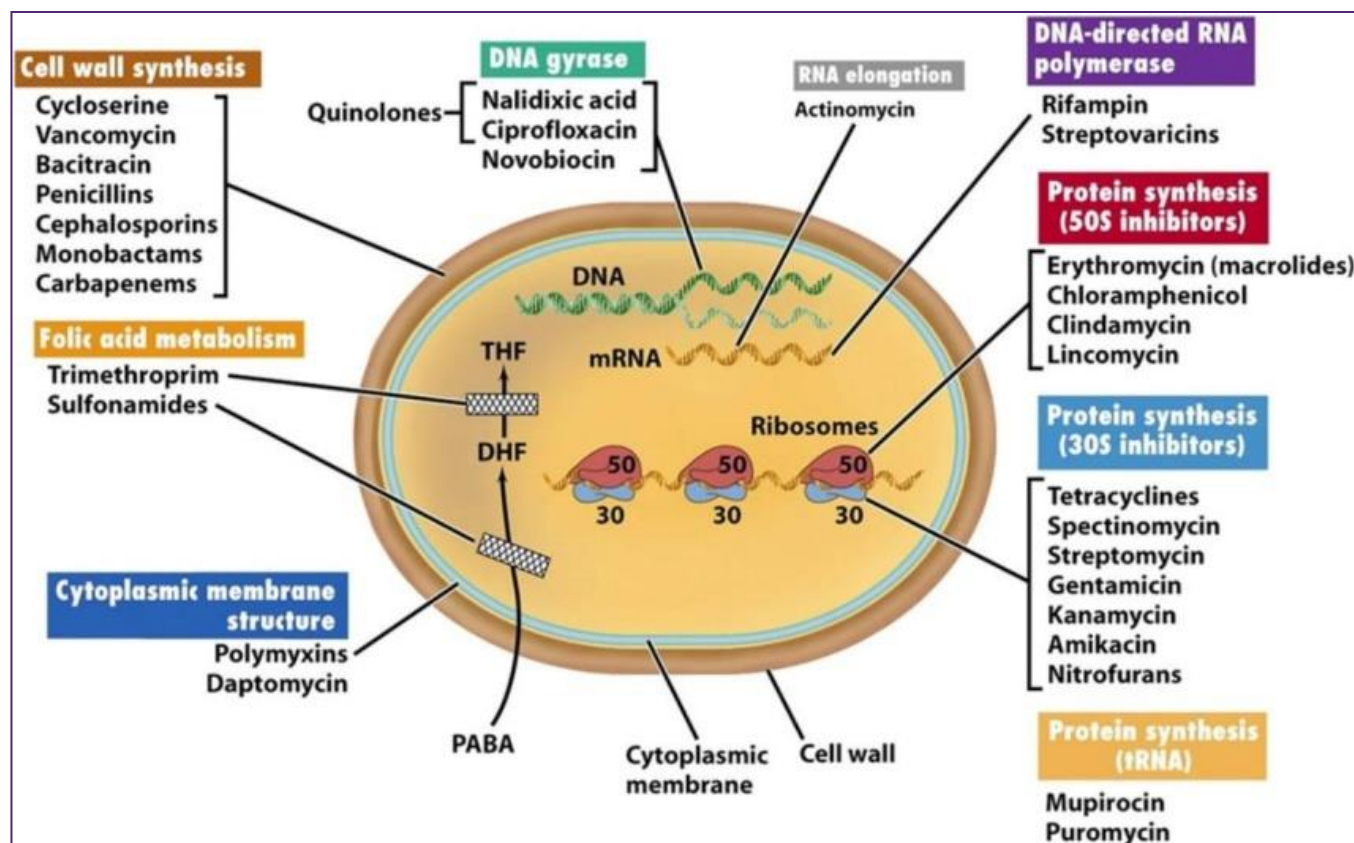


Fig: E 60.1

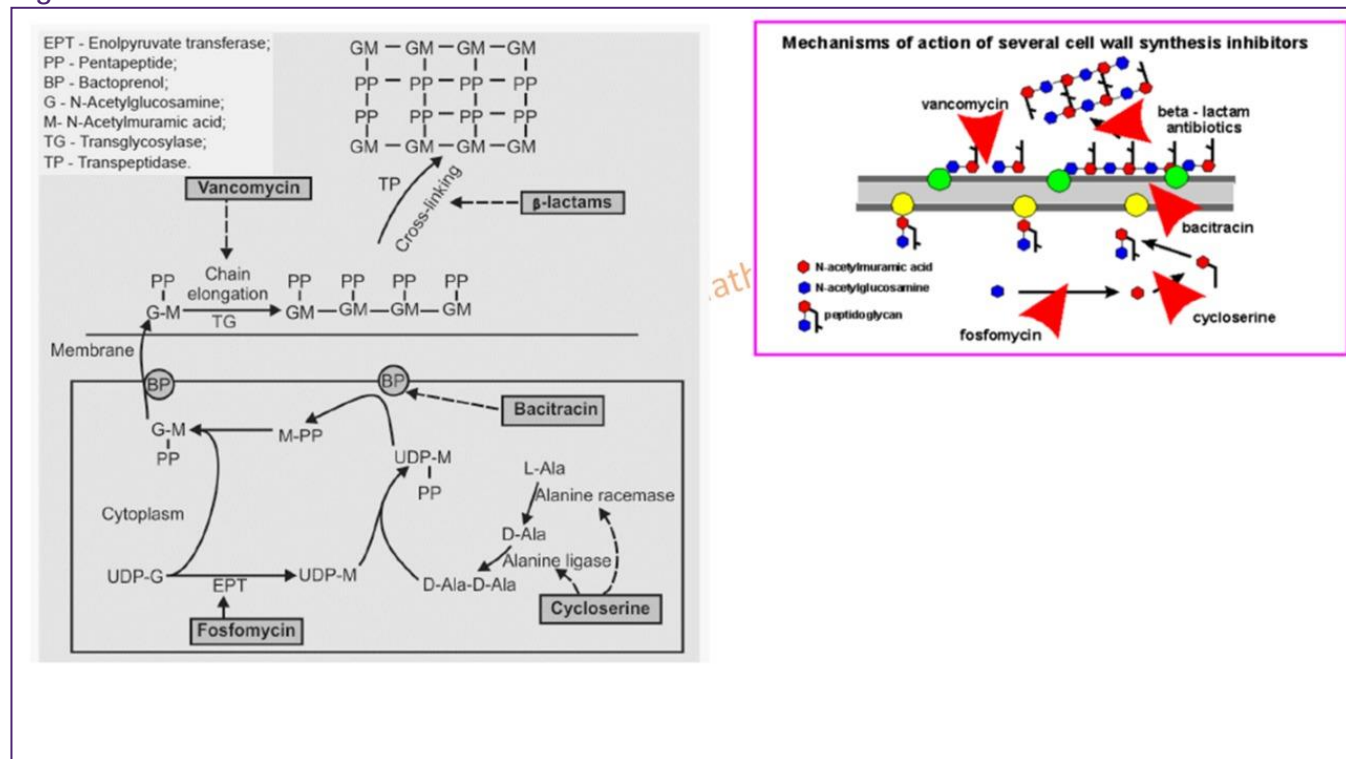


Fig: E 60.2



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MAGIC NOTES



MAGIC NOTES



Microbiology

61. Culture media

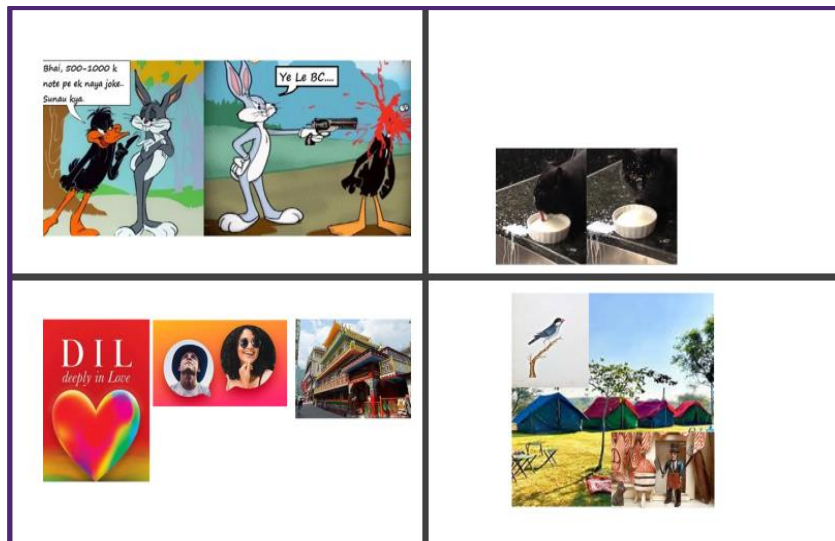


Fig: C 61.1

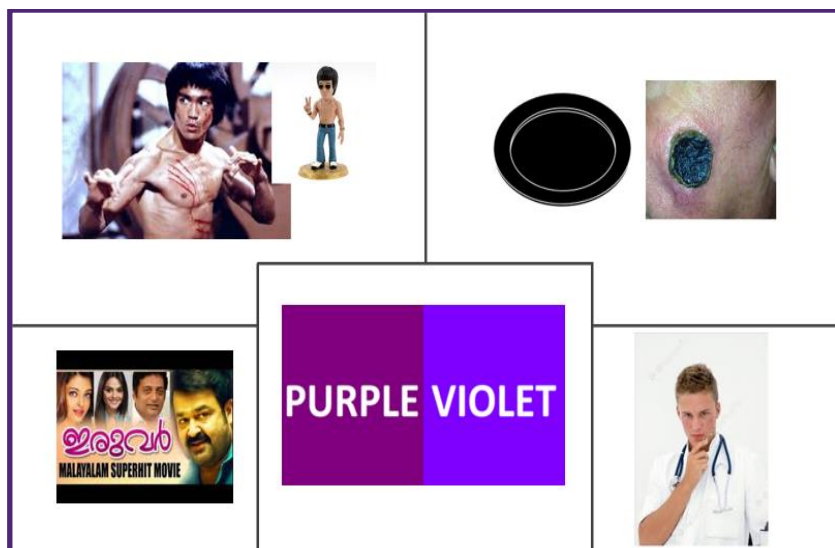


Fig: F 61.2

Loeffler's serum slope, Tinsdale, McLeod , Potassium Tellurite

Crystal violet blood agar

Castaneda medium

Ashdown medium

MYPA (mannitol egg yolk phenol red polymyxin), PEMBA

CAMPY BAP, Skirrows, Butzler, CVA

BCYE

Bordet Gengou, Regan Lowe

PLET

Mannitol salt agar, salt milk agar, Ludlam

Wilson & Blair Bismuth sulphite

Cetrimide agar

TCBS, GTTA. Alkaline bile salt agar

Fildes, Levinthal , Chocolate agar, Blood agar with S aureus streak

Thayer Martin, New York

Lowenstein Jensen , Dorset egg

PALCAM

Robertson cooked meat broth , Thioglycollate broth

CLED . Mac Conkey

DCA, XLD, SSA

Table: F 61.1

62. Mycology (ADD FUNGI CLASSIFICATION)

4.3 Major group and properties of fungi

Fungi	hyphae	representives	Sexual spore
Zygomycetes	Non -septate	Mucor; Rhizopus	Zygospore
Ascomycetes	Septate	Neurospora; Saccharomyces	Ascospore
Basidiomycetes	Septate	Agaricus; amanita	Basidiospore
Deuteromycetes	Septate	Aspergillus; Penicillium	Not found

Fig: C 62.1

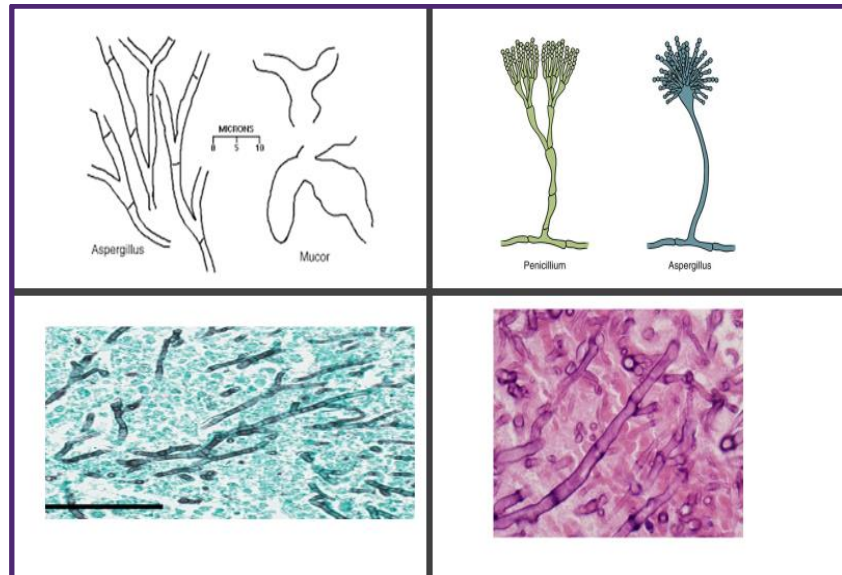


Fig: C 61.2

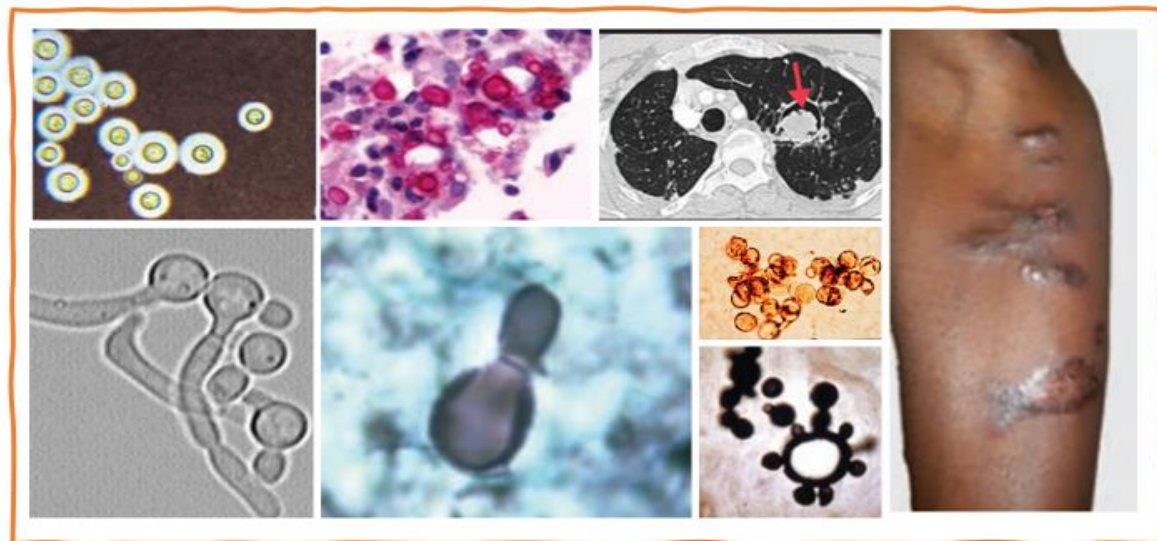


Fig: C 61.3

63. Protozoa

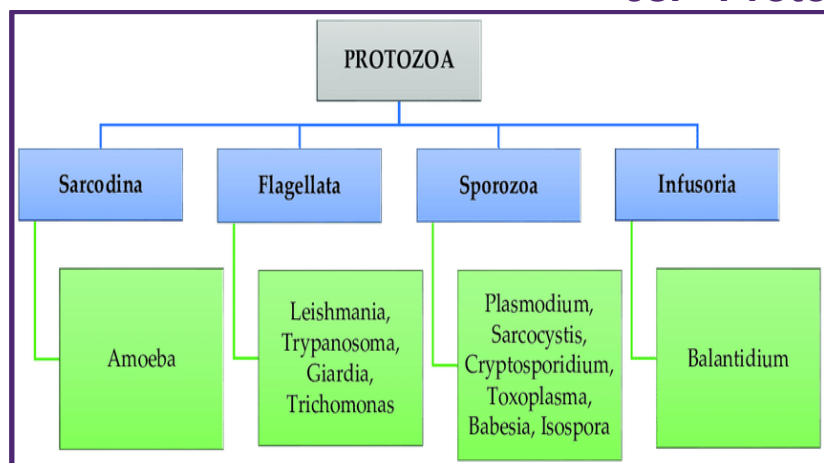


Fig: C 63.1

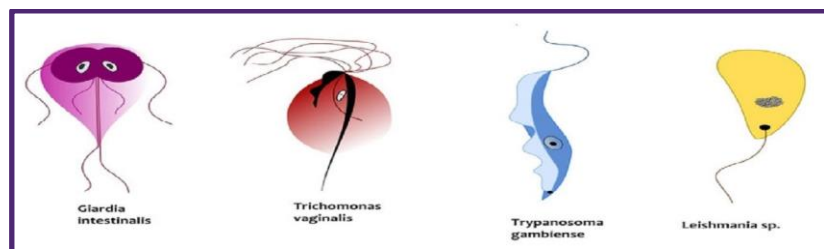


Fig: C 63.2

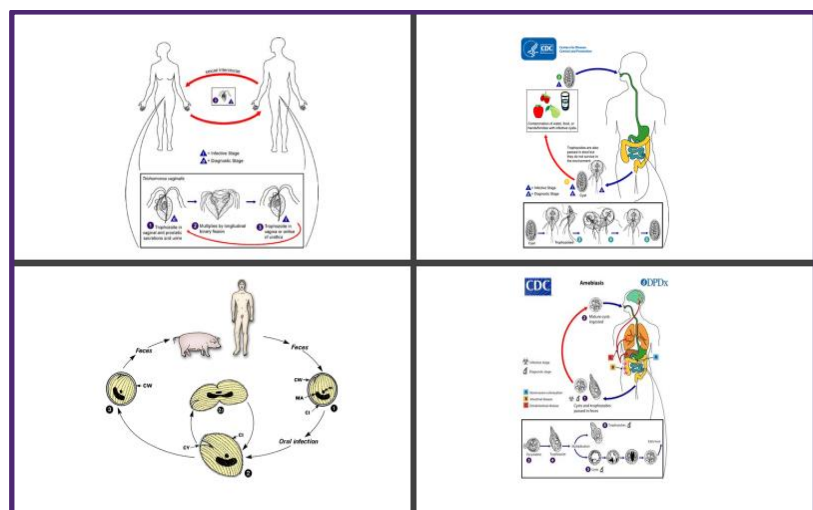


Fig: C 63.3

- Only ciliate to infect humans -
- Infective form for Giardia –

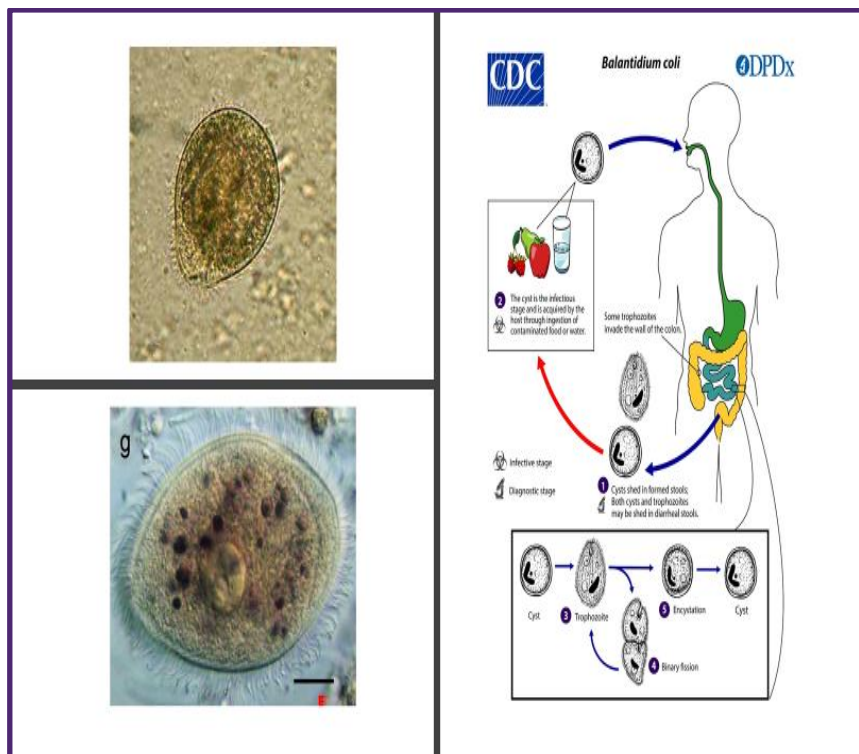


Fig: C 63.4

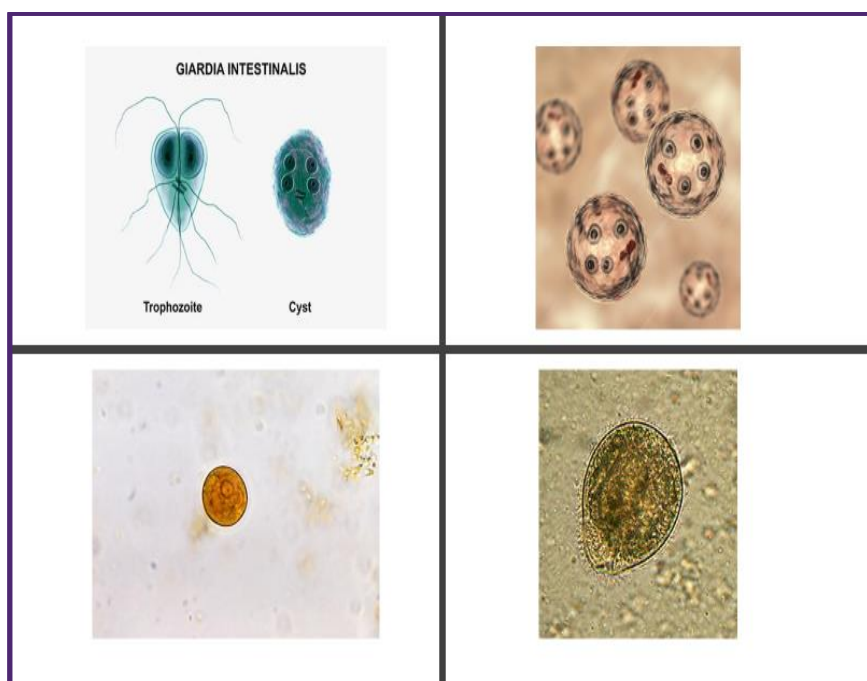


Fig C 63.5

64. Rickettsia

Organism	Disease	Vector
Typhus group		
R prowazekii	Epidemic typhus & Brill-Zinsser disease	Louse
R.typhi	Endemic typhus	Rat Flea
Spotted fever group		
R.rickettsii	Rocky mountain Spotted fever	Tick (dermacentor Andersoni)
R.conori	Indian tick typhus	Tick
R.akari	Rickettsial pox	Gamasid mite
Scrub Typhus		
O.Tsutsugamushi	Scrub typhus	Trombiculid mite

Table: F 63.1

65. Hepatitis B serology

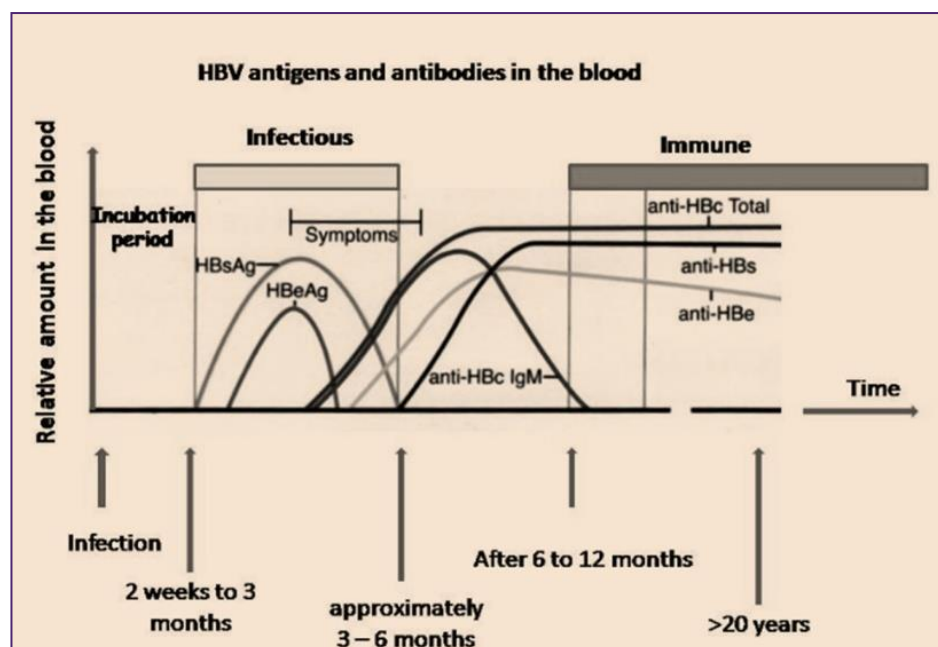


Fig: F 65.1

	HBsAg	Anti-HBs	HBeAg	Anti-HBe	Anti-HBc
Acute HBV, high infectivity	+	-	+	-	IgM
Chronic HBV, high infectivity	+	-	+	-	IgG
Late acute or Chronic HBV, low infectivity	+	-	-	+	IgG
Acute Hep B, window period	-	-	+/-	+/-	IgM
Low-level Hep B carrier	-	-	-	+/-	IgG
Hepatitis in the remote past	-	-	-	+/-	IgG
Recovery	-	+	-	+/-	IgG
Immunization with HBsAg or false positive	-	+	-	-	-

Fig: F 65.2

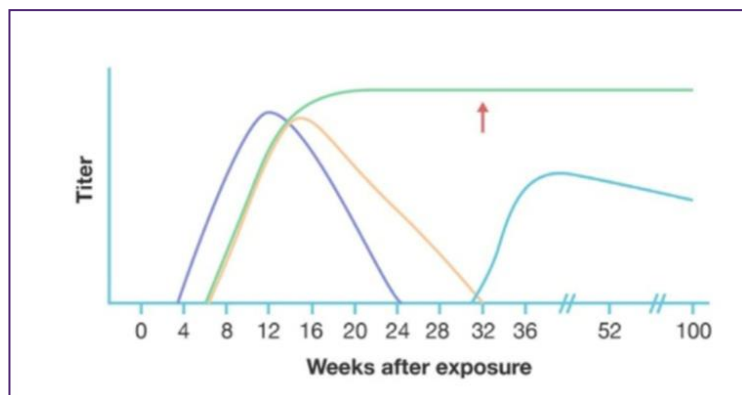


Fig: F 65.3

HBsAg	Anti-HBs	Anti-HBc
Negative	Negative	Negative
Negative	Positive	Negative
Negative	Positive	Positive
Positive	Negative	IgM Positive
Positive	Negative	IgG Positive

Fig: F 65.2

66. Parasitology egg tricks

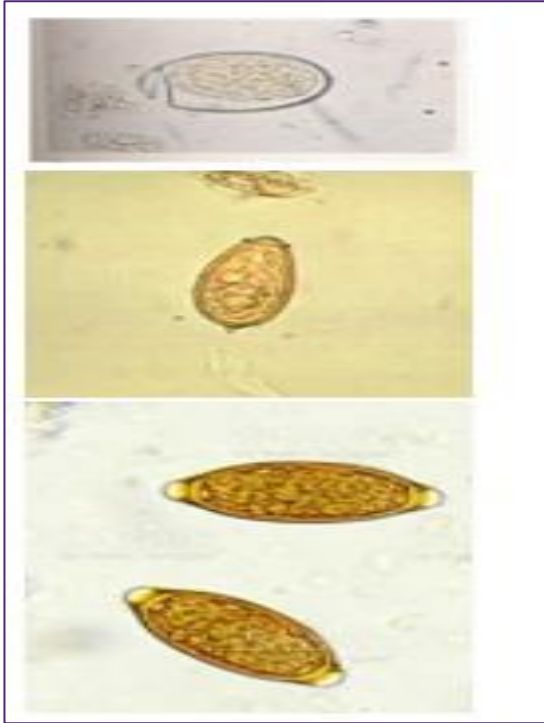


Fig: F 66.1



Fig: F 66.2

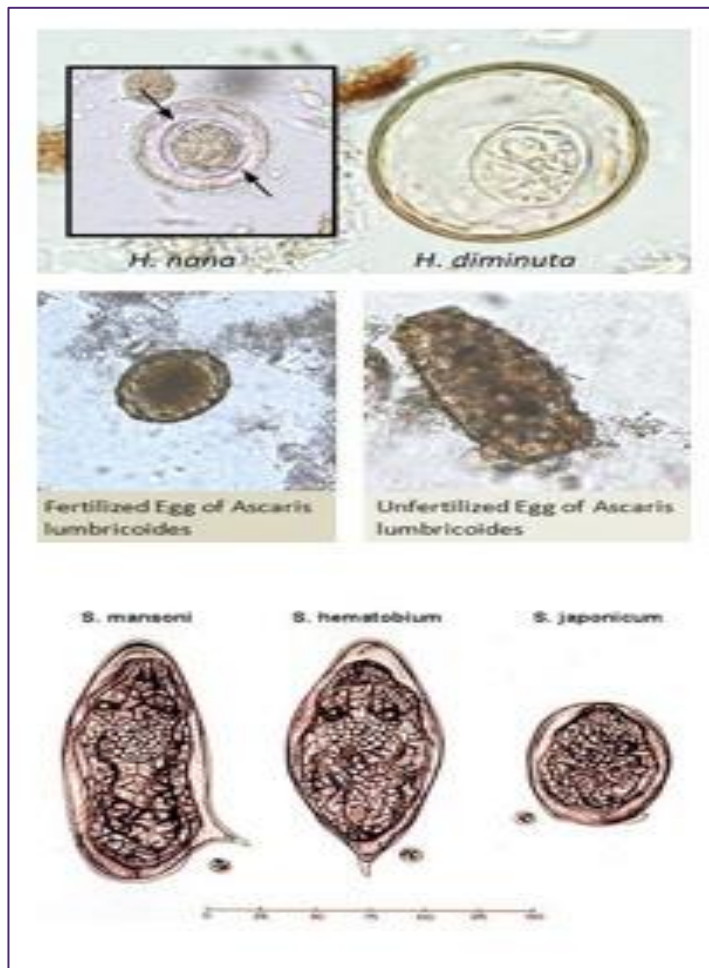


Fig: F 66.3

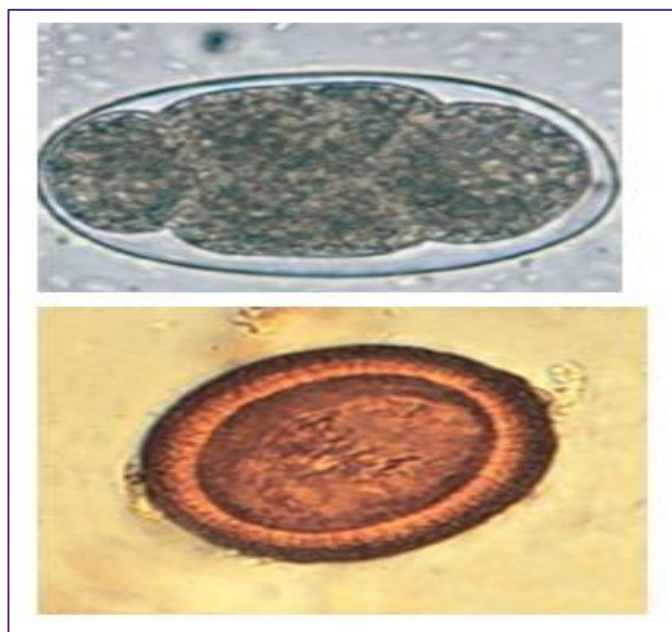


Fig: F 66.4



FMT

67. Plant poison images

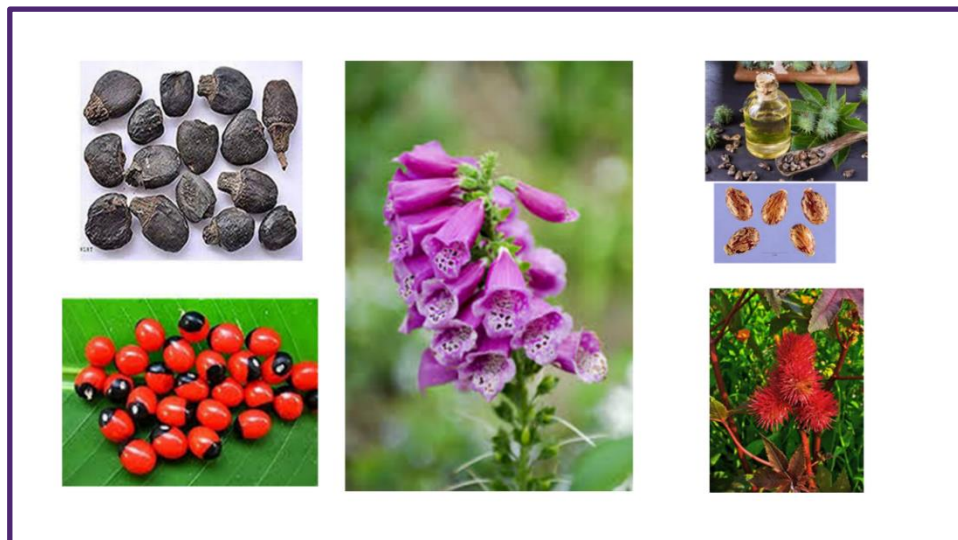


Fig: G 67.1

68. Aconite poisoning



Fig: G 68.1



Fig 25.1: Aconite plant

Fig 25.2: Aconite roots

Fig G 68.2

69. Arsenic & Lead poisoning



Fig: G 69.1

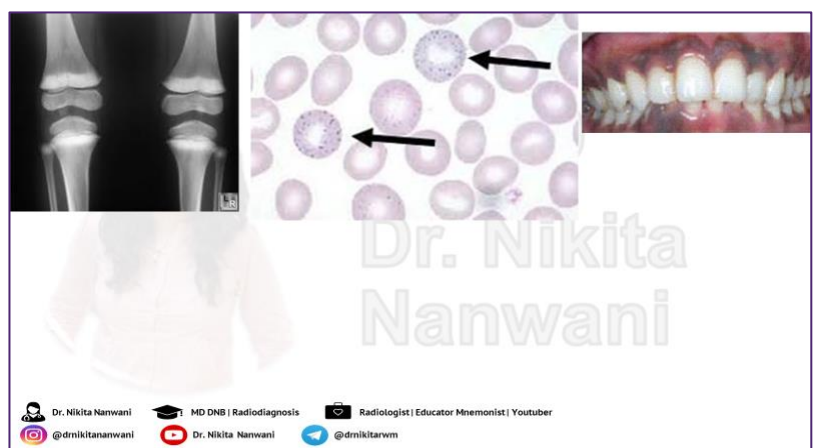


Fig: G 69.2



Fig: G 69.3



Fig: G 69.4

70. Snake identification



Fig G 70.1

71. Drugs of abuse

Drug	Magic points
Cocaine	
Alcohol	
Cannabis	
LSD	
Amphetamines	
Phencyclidine	

Table: G 71.1

72. Important IPC sections

MAGIC NOTES



MAGIC NOTES



PSM

73. HDI vs PQLI

Dimensions	HDI	PQLI
Longevity	Life Expectancy at birth	Life expectancy at 1 year age
Income/ decent standard of living	Real GDP per Capital in PPP US \$	IMR
Knowledge	Mean years of schooling – gross enrolment ratio & literacy rate	Literacy rate

Table: H 73.1

74. Triage

Color Code	Type of Patients	Examples
Red (High priority)	Need for immediate resuscitation or surgery in the next 6 hours or transfer. May survive if timely medical intervention can be given	• Tension pneumothorax • Airway obstruction • Hemothorax • Cardiac tamponade • Acute circulatory arrest • Major intra –abdominal bleed etc.
Yellow (Medium Priority)	Possible resuscitation or surgery in the next 24 hours.	• Compound fractures • Degloving injuries • Pelvic fracture • Spinal injuries • Moderate head injury
Green (Low priority)	Ambulatory patients or minor illnesses. Likely to survive if treatment is slightly delayed	• Simple fractures • Minor lacerations etc.
Black (Least priority)	Dead or moribund patients	• Severe brain injury • Major damage/disruption to chest wall and abdominal structures

Table: H 74.1

75. Biomedical Waste Management



Fig: H 75.1

YELLOW BAGS	RED BAGS	BLUE BAGS	BLACK CARBOY
Infectious waste, bandages, gauze, cotton or any other objects in contact with body fluids, human body parts, placenta etc.	Plastic waste such as catheters, in jecton syringes, tubings, iv bottles	All types of glass bottles and broken glass articles, outdated & discarded medicines	Needles without syringes, blades, sharps and all metal articles.

Fig: H75.2

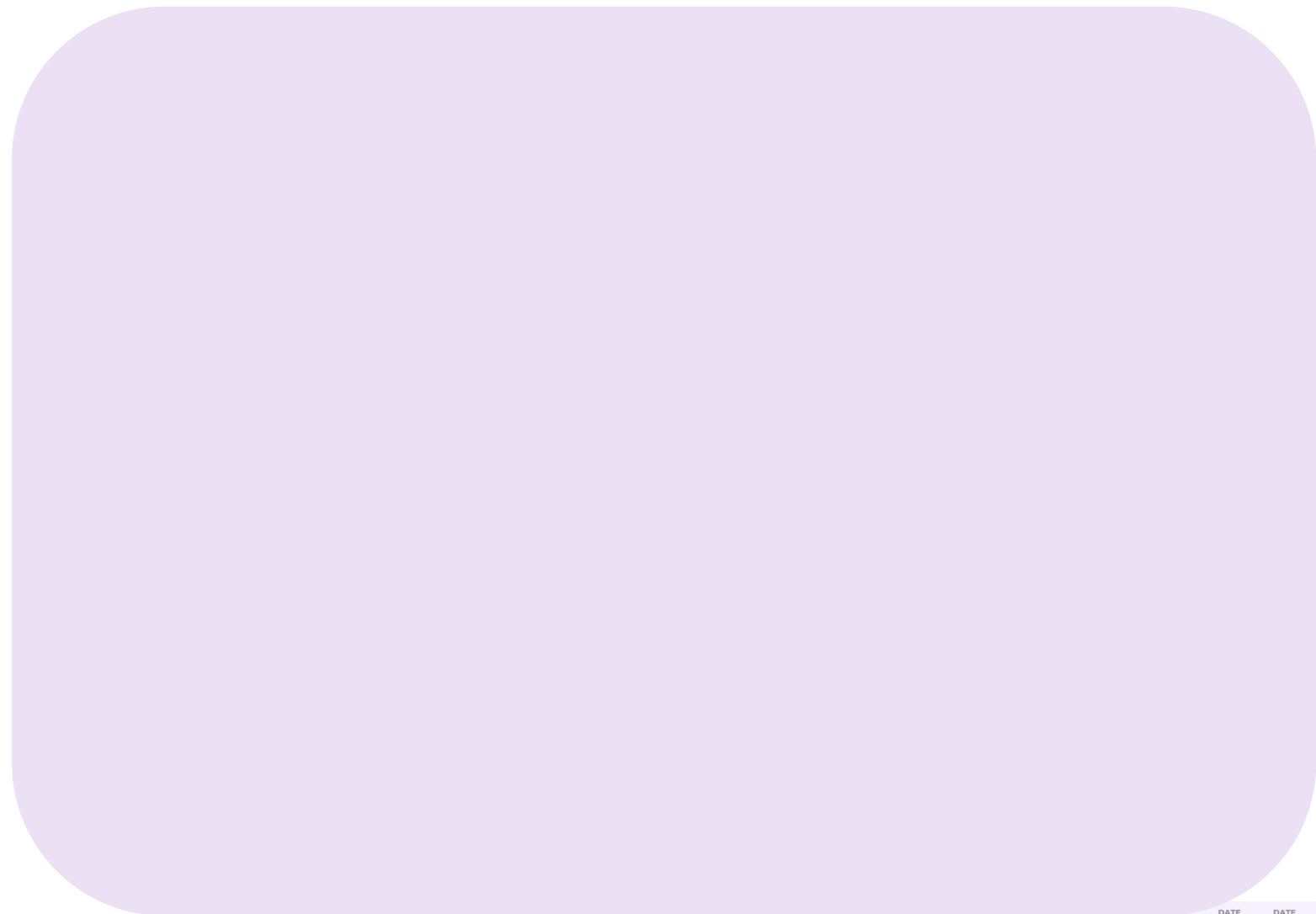
Blood bag	
Urine bag	
Gloves	
Cytotoxic drugs	
Syringes	
Needles	
Aspirated body fluids	
Metal implant	
Glassware	
Iv tubing	
Syringes with fixed needles	
Ampoules / vaccine vials	

Table: H 75.1

76. Tests of significance

Chi square test		
Paired t test		
Unpaired t test		
ANOVA		

Table: H 76.1



77. STI kits

Kit.	Syndrome	Colour	Contents
1	Urethral Discharge(UD), Ano-Rectal Discharge, Cervicitis/Cervical Discharge	GRAY	Tab. Azithromycin 1gr(1) & Tab.Cefixime 400mg (1)
2	Vaginitis	GREEN	Tab.Secnidazole 1gr(2) & Tab.Fluconazole150mg (1)
3	Genital Ulcer Disease - Non-Herpetic (GUD-NH)	WHITE	Inj.Benzathiene Pencillin 2.4MU(1) & Tab.Azithromycin 1gr(1)
4	Genital Ulcer Disease - Non-Herpetic (GUD-NH)	BLUE	Tab.Azithromycin 1gr(1) Tab.Doxycycline 100mg (30)
5	Genital Ulcer Disease-Herpetic (GUD-H)	RED	Tab. Acyclovir 400mg (21)
6	Lower Abdominal Pain (LAP)	YELLOW	Tab.Cefixime 400mg (1), Tab.Metronidazole 400mg(28) Tab.Doxycycline 100mg (28)
7	Inguinal Bubo (IB)	BLACK	Tab.Azithromycin 1gr(1) Tab.Doxycycline 100mg (42)

Fig: H 77.1

78. Vector/ Mosquito



Fig: H 78.1



Fig: H 78.2

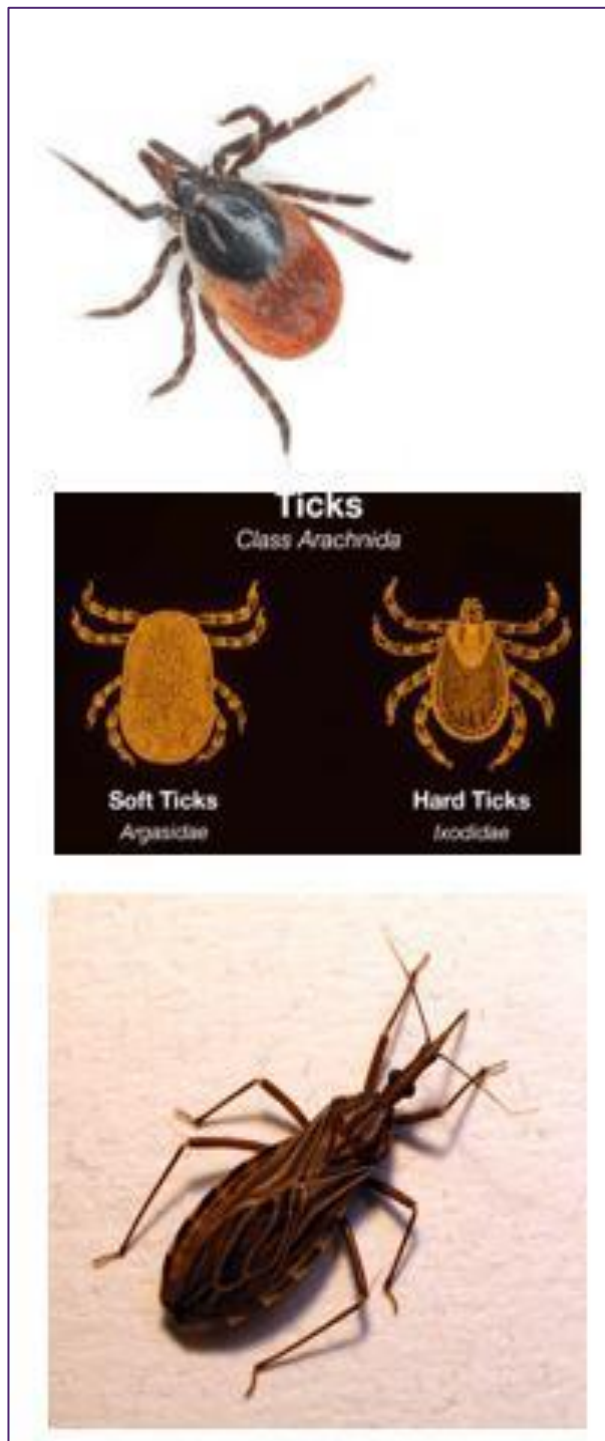


Fig: H 78.3

79. Food Adulteration Diseases



Fig: H 79.1

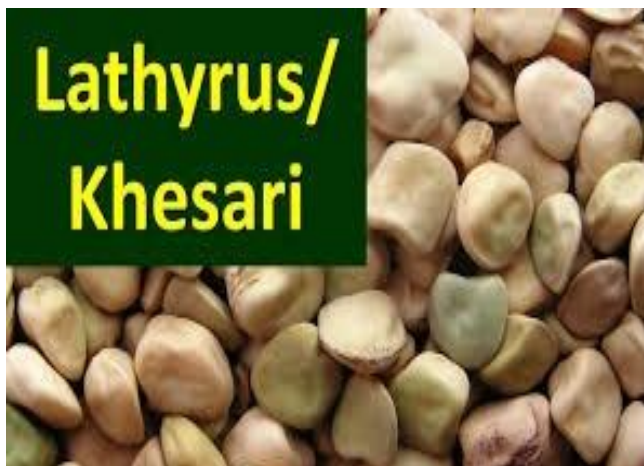


Fig: H 79.2

Neurolathyrism

It is a crippling disease of the nervous system characterized by gradually developing spastic paralysis of lower limbs. Mostly occur in adults.

Toxin : BOAA (Beta oxalyl amino alanine)

Adulterant: Khesari Dal (Lathyrus Sativus)



Fig: H 79.3

EPIDEMIC DROPSY

Symptoms are: non-inflammatory, bilateral swelling of legs, often associated with diarrhoea, dyspnea, cardiac failure and death.

May occur at all ages.

Toxin: Sanguinarine

Adulterant: Argemone Mexicana (oil)



Fig: H 79.4



Fig: H 79.5

Endemic Ascites:

Symptoms are: Ascites and Jaundice.

o Toxin : Pyrrolizidine alkaloids (Hepatotoxins)

Adulterant: Crotalaria Seeds (Jhunjhunja)

MAGIC NOTES

Lined area for taking notes.



MAGIC NOTES



ENT

80. Hearing tests

True about Rt SNHL,

- A. Rinne- AC > BC, weber lateralised to Lt ear
- B. Rinne- BC > AC, weber lateralised to Lt ear
- C. Rinne- AC > BC, weber lateralised to RT ear
- D. Rinne- BC > AC, weber lateralised to rt ear

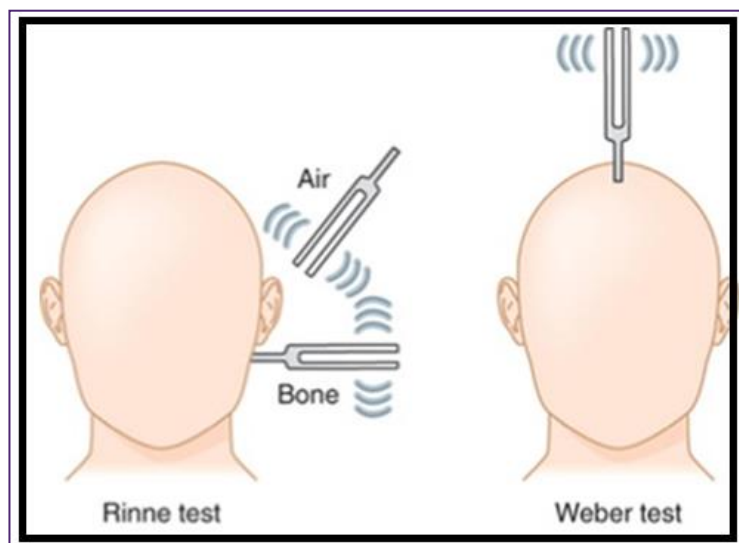


Fig: I 80.1

Hearing loss	Rinne test (conduction)	Weber test (localization)
None	Air > bone	Midline
Sensorineural	Air > bone	Normal ear
Conductive	Bone > air	Affected ear

Table: I 80.1

81. Structures Opening Into Meatus

- **Inferior** meatus: **Nasolacrimal duct**, guarded by the valve of Hasner
- **Middle** meatus: **Frontal** sinus, **maxillary** sinus, **anterior ethmoidal** sinus.

All these together form the **oste-eatal complex** or Picadlie's drde

- **Superior** meatus: **Posterior ethmoidal** sinus.
- **Sphenoethmoidal** recess: **Sphenoid** sinus.

82. X Ray Views - PNS & Orbit

STRUCTURE	BEST VIEWED ON
1. Frontal sinus.	A. Water's view
2. Maxillary sinus	B. Towne view
3. Superior orbital fissure	C. Rhese view
4. Inferior orbital fissure	D. Caldwell view
5. Optic foramen	E. Submentovertical View

Table: I 82.1



Fig: I 82.1

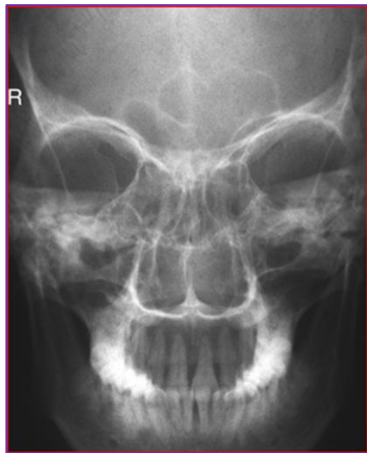


Fig: I 82.2



Fig: I 82.3



Fig: I 82.4

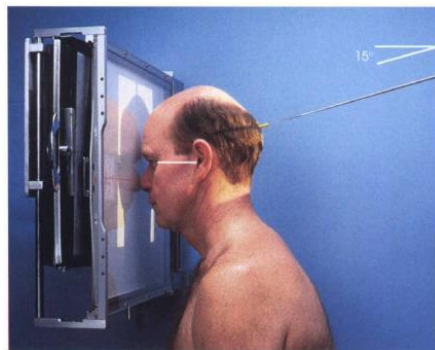


Fig: I 82.5

MAGIC NOTES

Lined area for writing notes.



DATE

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2nd Revision

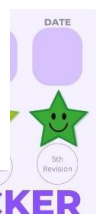
3rd Revision

4th Revision

5th Revision

MAGIC TRACKER

MAGIC NOTES



OPHTHALMOLOGY

83. Keratoconus

All of the following are seen in keratoconus except

- A. Haab's striae
- B. Scissoring reflex
- C. Oil droplet reflex
- D. Fleischer ring

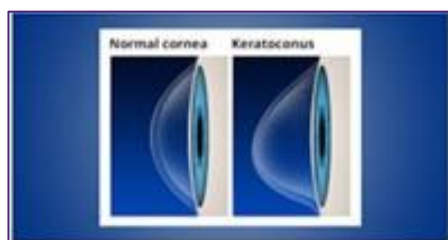


Fig: J 83.1

Diagnostic Sign	Definition
Vogt's Striae	Stria and fine lines within the stroma and Descemet's membrane of the cornea caused by corneal stretching and thinning
Fleischer's Ring Sign	A yellow-brown to olive-green ring caused by iron oxide hemosiderin deposition in the epithelium of the cornea Munson's
Rizzuti's sign	Distortion of the lower eyelid when the patient is gazing downward
Apical Scarring	A conical and bright reflection of the nasal area of the limbus when light is shone to the temporal side Apical
Scissoring reflex	Scarring at the apex of the cone During retinoscopy, two bands of the light beam reflexed from the retina, like the blades of a pair of scissors, moving toward and away from each other

Table : J 83.1



Fig: J 83.2



Fig: J 83.3

84. Fundus images



Fig: J 84.1

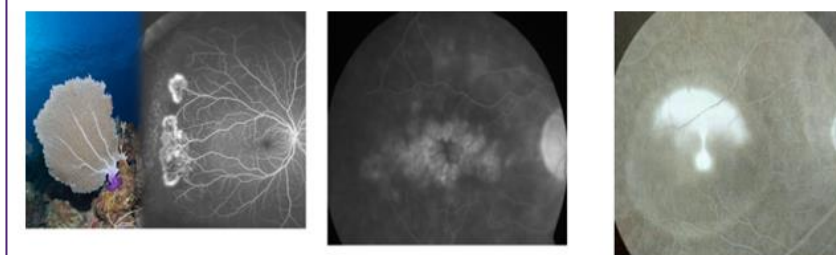


Fig: J 84.2

85. Extra Ocular Muscles

Muscle	Primary action	Secondary action	Tertiar action	Nerve supply	Magic points
Superior rectus					
Inferior rectus					
Medial rectus					
Lateral rectus					
Superior oblique					
Inferior oblique					

Table: J 85.1



Fig: J 85.1

What is the most probable diagnosis based on the given image?

- A. 3rd cranial palsy
- B. 6th nerve palsy
- C. 7th nerve palsy
- D. 4th nerve palsy



Fig: J 85.2

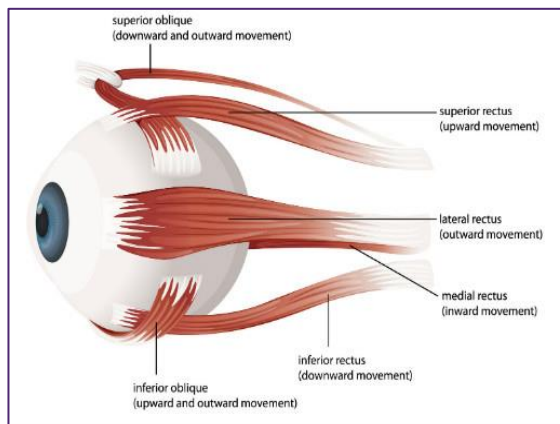


Fig: J 85.3

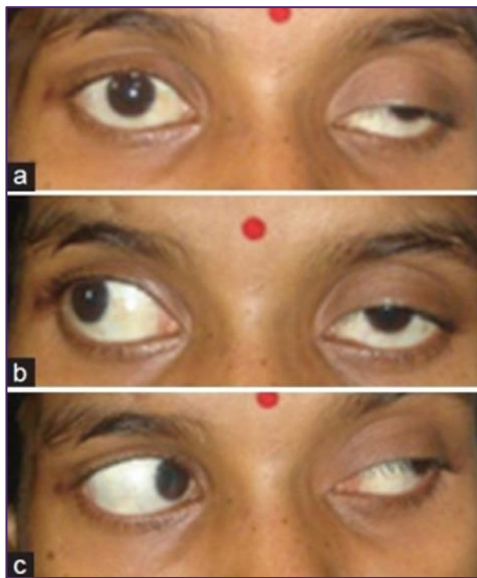


Fig: J 85.4

86. Park 3 Step Test

A pt presents with left sided head tilt, which on straightening leads to right hypotropia, which increases on dextroversion and right head tilt Which muscle is involved

- A. RSO
- B. RSR
- C. RIO
- D. LSO



Fig: J 86.1

Muscle palsy	Hypertropia	Gaze (increases)	Head tilt (increases)
RSR	Lt	Rt	Rt
RIR	Rt	Rt	Lt
RIO	Lt	Lt	Lt
RSO	Rt	Lt	Rt
LSR	Rt	Lt	Lt
LIR	Lt	Lt	Rt
LIO	Rt	Rt	Rt
LSO	Lt	Rt	Lt

primary eye hunting for

Gaze-opp in superior, same in inferior (wrt to affected side)
 Tilt- opp in rectus, same in oblique, (wrt to hypertropic side)

Fig: J 86.2

87. Direct vs indirect ophthalmoscopy

FEATURE	DIRECT OPHTHALMOSCOPE	INDIRECT OPHTHALMOSCOPE
Condensing lens	Not required	Required
Examination distance	As close to the patient's eye as possible	At an arm's length
Image	Virtual, Erect	Real, Inverted
Magnification	15 times	4-5 times
Illumination	Not so bright, so not useful in hazy media	Bright, so useful in hazy media
Area of the field in focus	About 2 disc diameter	About 8 disc diameter
Stereopsis	Absent	Present
Accessible fundus view	Slightly beyond equator	Up to ora serrata
Examination through hazy media	Not possible	Possible

Table: J 87.1



Fig: J 87.1

MAGIC NOTES

Lined area for writing notes.



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5th Revision

MAGIC TRACKER

MAGIC NOTES

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5th Revision

MAGIC TRACKER

MEDICINE

88. ECG - Named waves

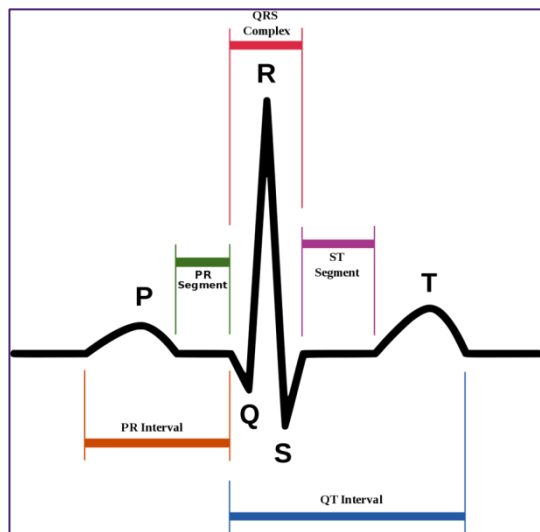


Fig: K 88.1

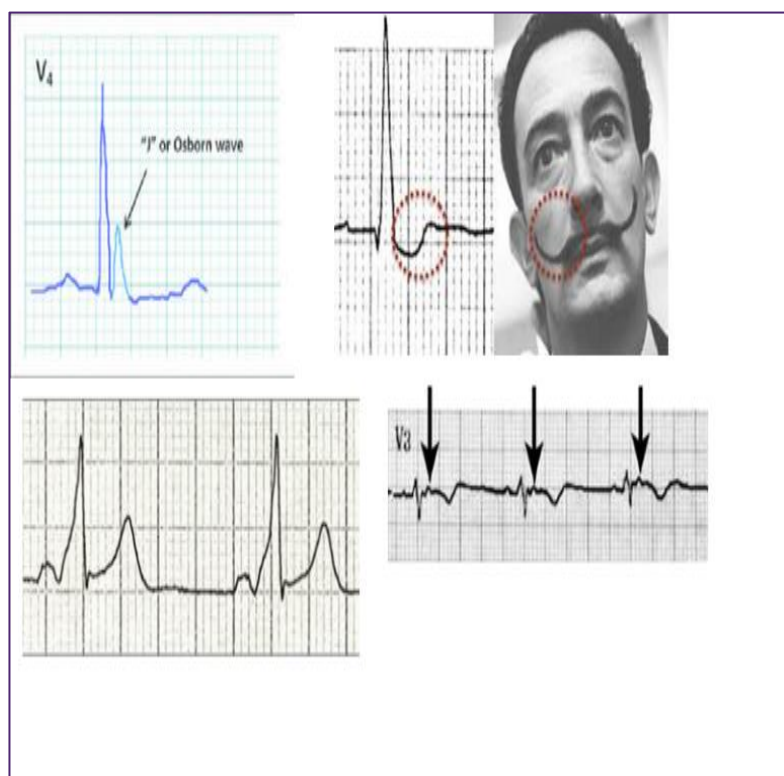


Fig: K 88.2

89. ECG - Supraventricular arrhythmias



Fig: K 89.1

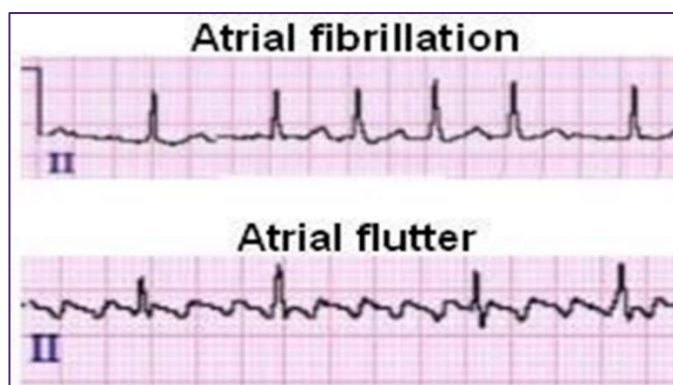


Fig: K 89.2

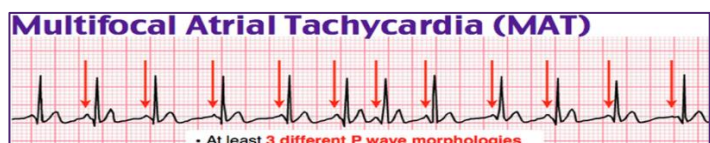


Fig: K 89.3

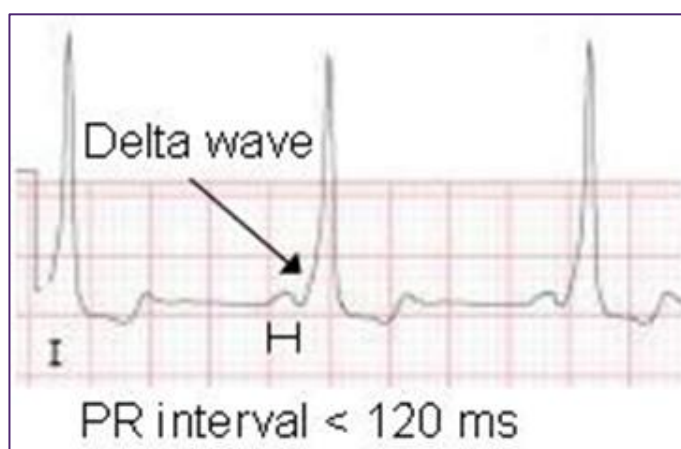


Fig: K 89.4

90. ECG - Ventricular arrhythmias



Fig: K 90.1

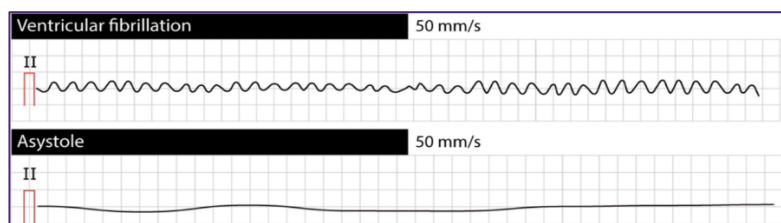


Fig K 90.2

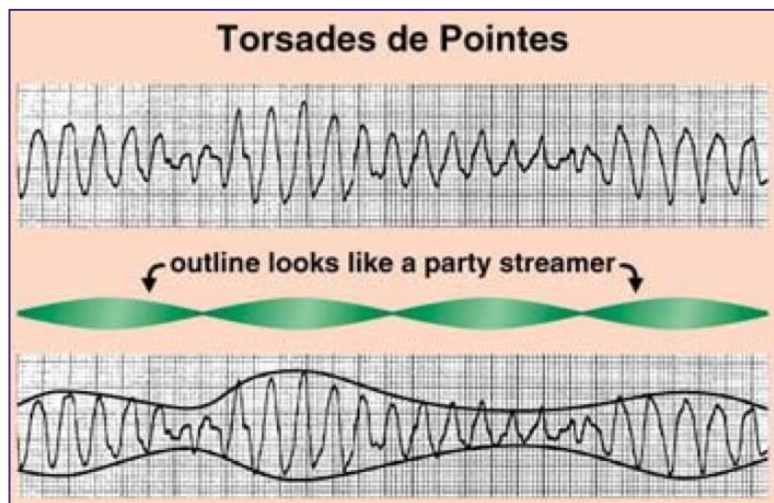


Fig K 90.3

91. ECG - AV block

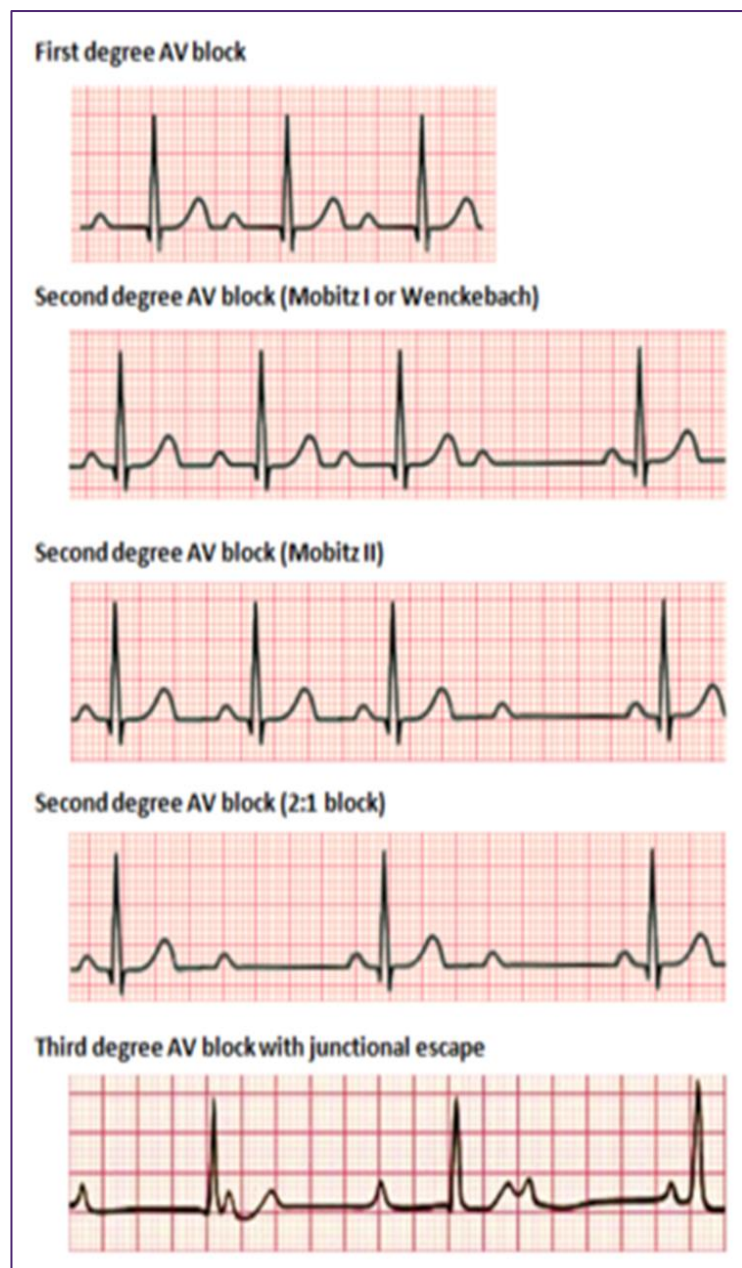


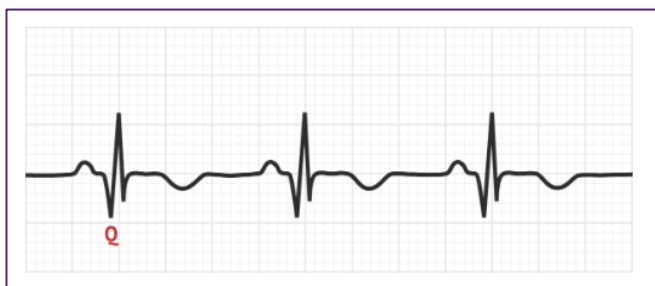
Fig: K 91.1

92. ECG in MI & Pericarditis

- Lead Complexes
- Lateral - I, aVL, V5, V6
- Inferior - II, III, aVF
- Septal - V1, V2
- Anterior - V3, V4
- Right ventricular (requires extra leads) - V1R-V6R



- Posterior (requires extra leads) - V7-V9



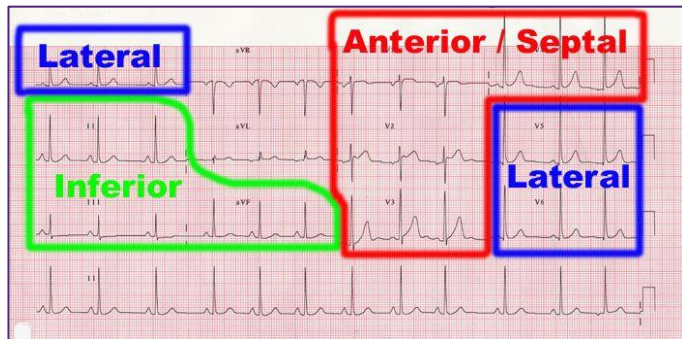


Fig: K 92.1

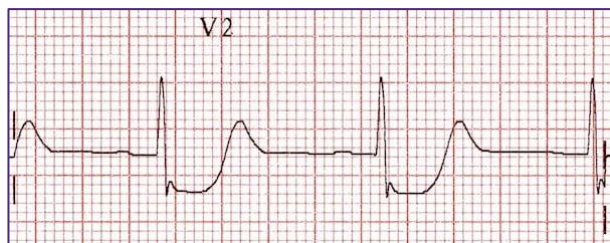


Fig: K 92.2

Concave-up ST elevation



PR segment depression

Fig: K 92.3

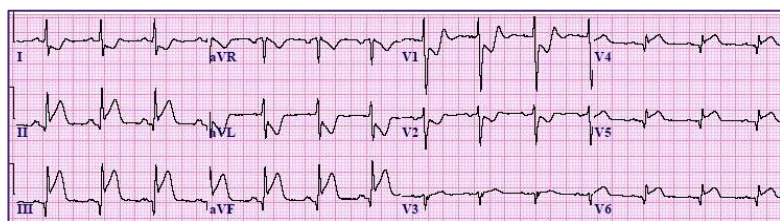


Fig: K 92.4

93. Acid base disorders

Disorder	Primary change	Compensatory change	Renal compensation	Respiratory compensation
Metabolic acidosis				
Metabolic alkalosis				
Respiratory acidosis				
Respiratory alkalosis				

Table: K 93.1



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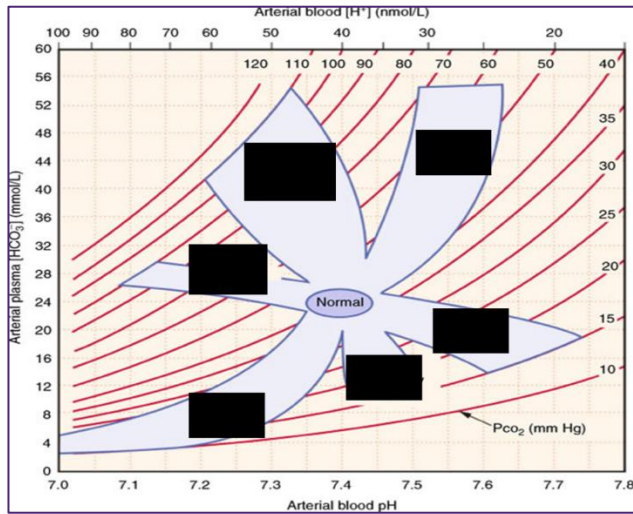


Fig: K 93.1

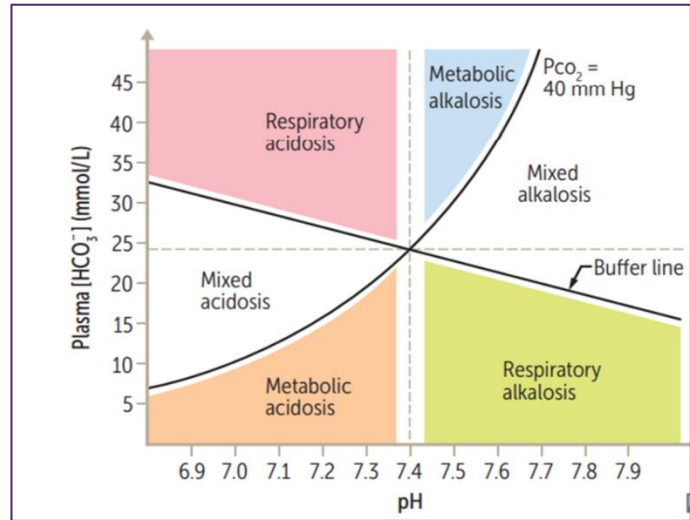


Fig: K 93.2

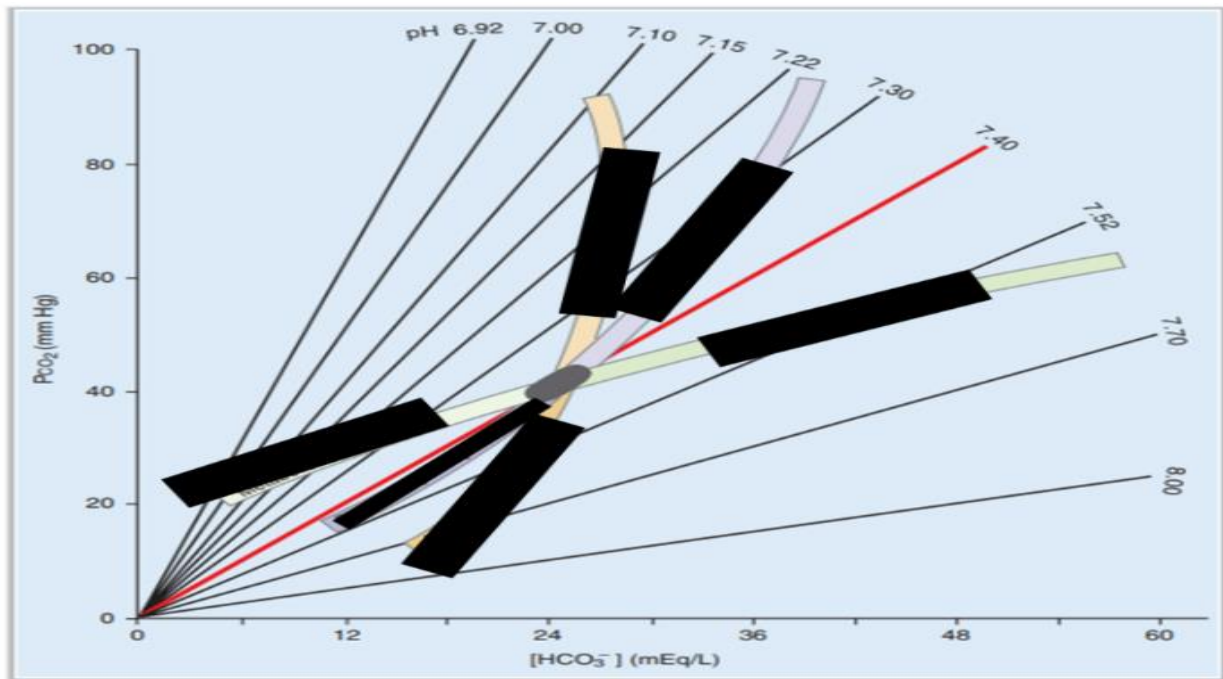


Fig: K 93.3

94. CURB 65

Table 1. CURB-65 Scoring⁴⁶

Symptom		Points
Confusion		1
Urea: BUN >19 mg/dL (>7 mmol/L)		1
Respiratory rate ≥30 breaths/min		1
Systolic BP <90 mm Hg or diastolic BP ≤60 mm Hg		1
Age ≥65 years		1
Total		_____
Score	Risk	Disposition
0 or 1	1.5% mortality	Outpatient care
2	9.2% mortality	Inpatient versus observation admission
≥3	22% mortality	Inpatient admission; consider ICU admission with score of 4 or 5
Abbreviations: BP, blood pressure; BUN, blood urea nitrogen; ICU, intensive care unit.		

Fig. 16.24.1

95. Porphyria

PORPHYRIA	DEFICIENT ENZYME	INHERITANCE	PRINCIPAL SYMPTOMS: NV OR CP+
Hepatic Porphyrrias			
5-ALA-dehydratase-deficient porphyria (ADP)	ALA-dehydratase	AR	NV
Acute intermittent porphyria (AIP)	HMB-synthase	AD	NV
Porphyria cutanea tarda (PCT)	URO-decarboxylase	AD	CP
Hereditary coproporphyria (HCP)	COPRO-oxidase	AD	NV and CP
Variegate porphyria (VP)	PROTO-oxidase	AD	NV and CP
Erythropoietic Porphyrrias			
Congenital erythropoietic porphyria (CEP)	URO-synthase	AR	CP
Erythropoietic protoporphyria (EPP)	Ferrochelatase	AR	CP
X-linked protoporphyria (XLP)	ALA-synthase 2	XL	CP

Fig: K 95.1

Porphyria	Enzyme deficient	Inheritance	Hepatic/erythrop	NV/cutaneous	Remarks
1. XLP					
2. ADP					
3. AIP					
4. CEP					
5. PCT					
6. HCP					
7. VP					
8. EPP					

Table: K 95.1

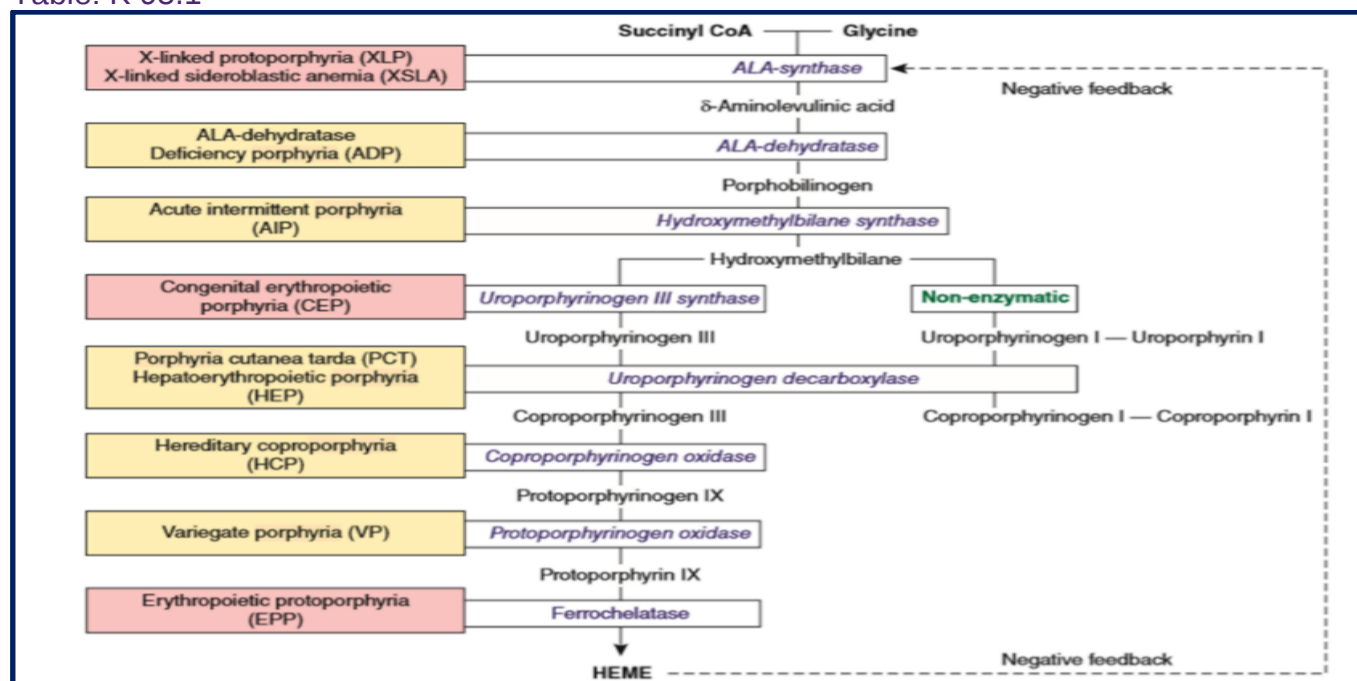


Fig: K 95.1



Fig: K 95.2

96. ECG in electrolyte abnormalities

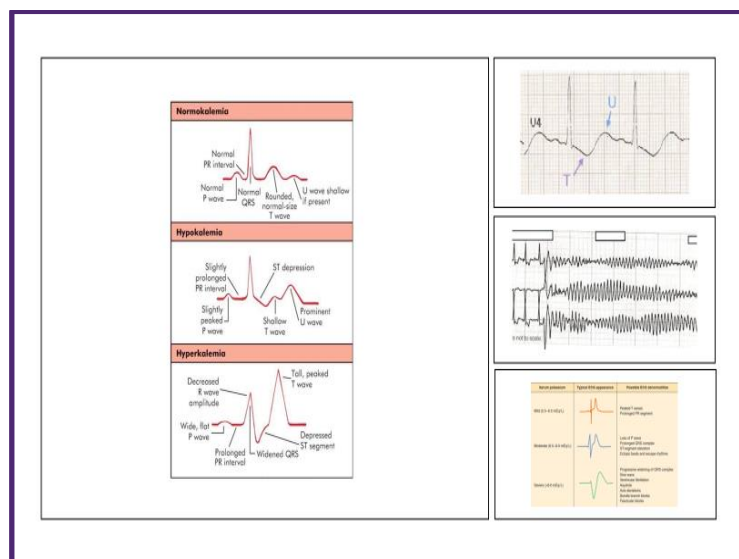


Table : K 96.1

97. SAAG

Ascites		SAAG	
		≥ 1.1 (Portal hypertension)	< 1.1 (Non portal hypertension)
Total Protein	< 2.5 (Pre- & Intrahepatic)	• Cirrhosis (1) • Portal vein thrombosis • Late budd-chiari	• Nephrotic syndrome
	≥ 2.5 (Post-hepatic)	• CHF (3) • Constrictive pericarditis/tamponade • IVC obstruction • Early budd-chiari	• Malignancy (2) • Peritoneal carcinomatosis • TB • Serositis (infection vs autoimmune) • Pancreatic ascites
		Urine/chylous may also cause SAAG ≥ 1.1	

Fig: K 97.1

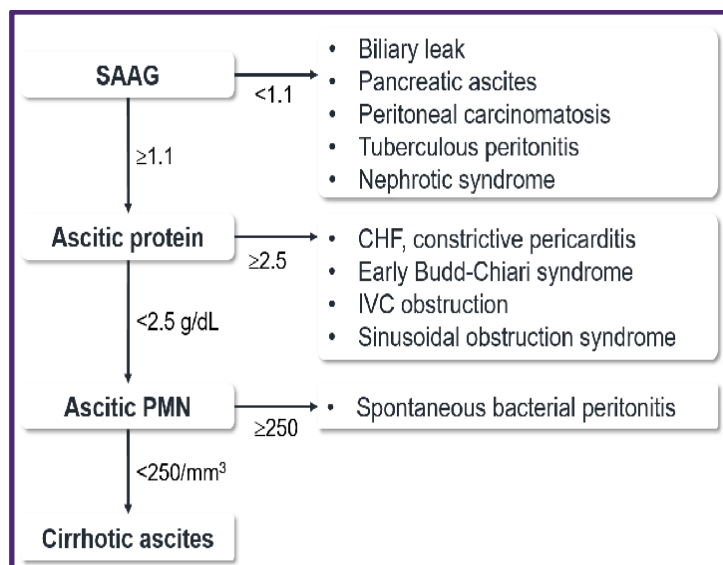


Fig: K 97.2

98. CSF - Meningitis

	Appearance	Opening Pressure mmHg	WBC(cell/ μ L)	Protein (mg/dl)	Glucose(mg/dL)
Normal	Clear	90-180	<8	15-45	50-80
Bacterial meningitis	Turbid	Elevated	>1000-2000	>200	<40
Viral Meningitis	Clear	Normal	<300; Lymphocytic Predominance	<200	Normal
Fungal Meningitis	Clear	Normal-elevated	<500	>200	Normal-low

Table : K 98.1

Opening pressure (N: 4–18 cm H ₂ O)	Elevated	Slightly elevated	Normal or high	Usually high
WBC (N: $\leq 5/\text{mm}^3$)	> 200/ mm^3	< 200/ mm^3	< 50/ mm^3	20–30/ mm^3
Differential (N: ≤ 3 PMNs/ mm^3)	PMNs	Monocytes	Monocytes	Monocytes
Glucose (N: 45–80 mg/dL)	Low (< 60% serum)	Normal	Low	Low
Protein (N: 23–38 mg/dL)	Very high	Normal	High	High
RBC (N: $\leq 5/\text{mm}^3$)	Few	None	None	None

Fig: K 98.1

99. Causes of acidosis / alkalosis

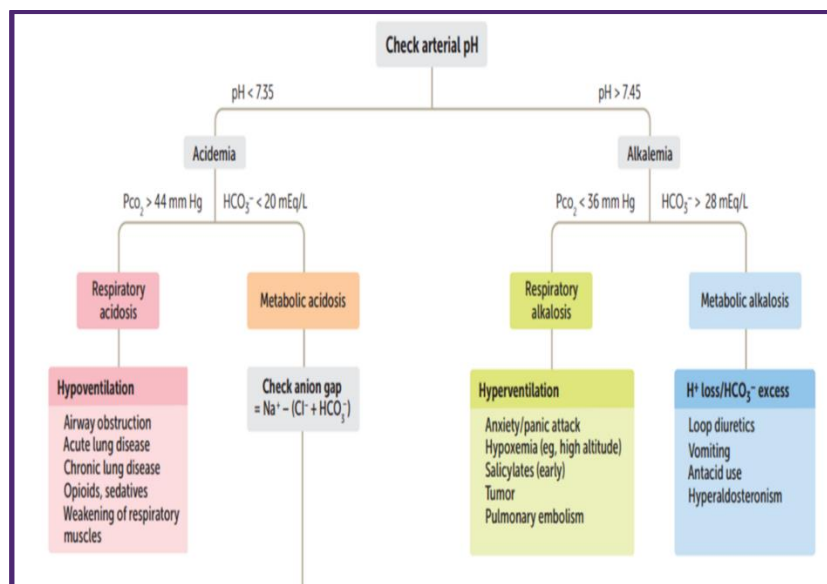


Fig: K 99.1

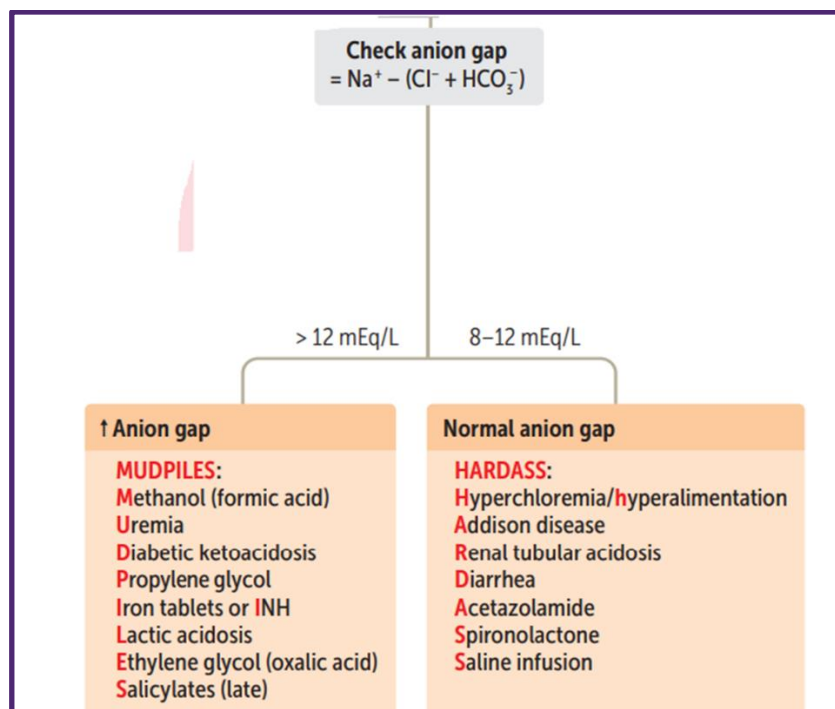


Fig: K 99.2

100. Renal tubular acidosis (RTA)

101. Renal tubular syndromes

102. Vasculitis

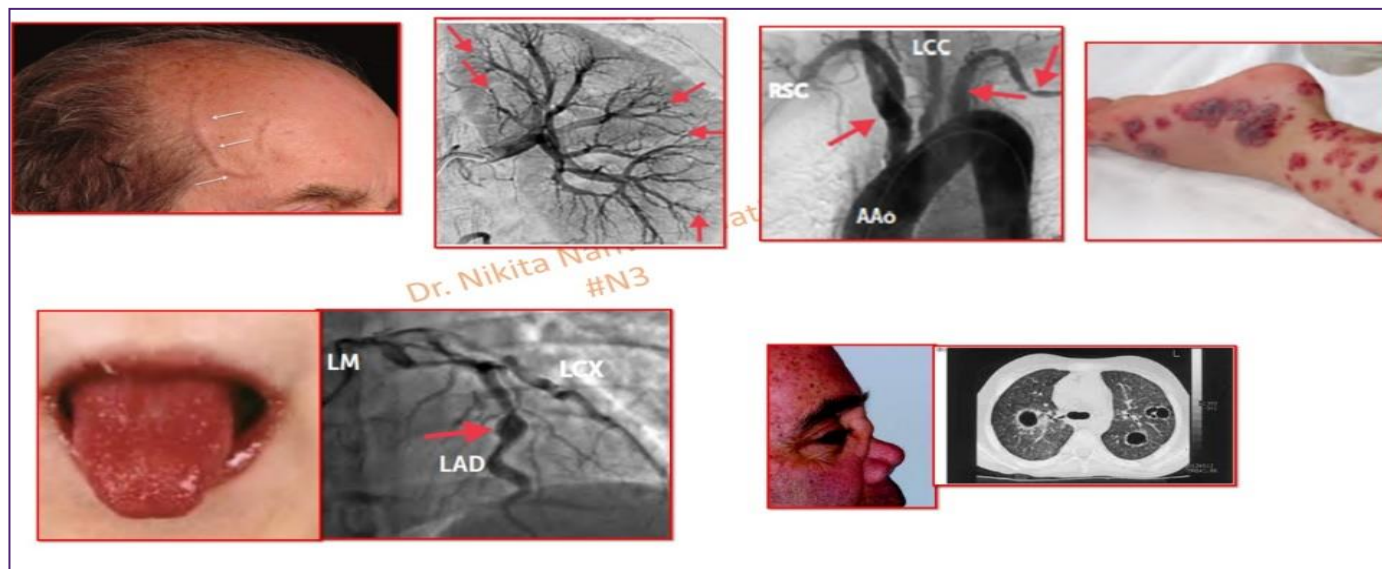


Fig: K 102.1

103. Autoimmune diseases with Antibodies

	AUTOANTIBODY	ASSOCIATED DISORDER
1	Anti-postsynaptic ACh receptor	Myasthenia gravis
2	Anti-presynaptic voltage-gated calcium channel	Lambert-Eaton myasthenic syndrome
3	Anti- β 2 glycoprotein I	Antiphospholipid syndrome
4	Nonspecific screening antibody, often associated with SLE	Antinuclear (ANA)
5	Anticardiolipin, lupus anticoagulant	SLE, antiphospholipid syndrome
6	Anti-dsDNA, anti-Smith	SLE
7	Antihistone	Drug-induced lupus
8	Anti-U1 RNP (ribonucleoprotein)	Mixed connective tissue disease
9	Rheumatoid factor (IgM antibody against IgG Fc region), anti-cyclic citrullinated peptide	Rheumatoid arthritis
10	Anti-Ro/SSA, anti-La/SSB	Sjögren syndrome
11	Anti-Scl-70 (anti-DNA topoisomerase I)	Scleroderma (diffuse)
12	Anticentromere Limited scleroderma	(CREST syndrome)
13	Antisynthetase (eg, anti-Jo-1), anti-SRP, anti-helicase (anti-Mi-2)	Polymyositis, dermatomyositis
14	Antimitochondrial	1° biliary cholangitis
15	Anti-smooth muscle, anti-liver/kidney microsomal-1	Autoimmune hepatitis
16	Myeloperoxidase-antineutrophil cytoplasmic antibody (MPO-ANCA)/perinuclear ANCA (p-ANCA)	Microscopic polyangiitis, eosinophilic granulomatosis with polyangiitis, ulcerative colitis, 1° sclerosing cholangitis
17	PR3-ANCA/cytoplasmic ANCA (c-ANCA)	Granulomatosis with polyangiitis
18	Anti-phospholipase A2 receptor	1° membranous nephropathy
19	Anti-hemidesmosome	Bullous pemphigoid
20	Anti-desmoglein (anti-desmosome)	Pemphigus vulgaris
21	Antithyroglobulin, antithyroid peroxidase (antimicrosomal)	Hashimoto thyroiditis
22	Anti-TSH receptor	Graves disease
23	IgA anti-endomysial, IgA anti-tissue transglutaminase, IgA and IgG deamidated gliadin peptide	Celiac disease
24	Anti-glutamic acid decarboxylase, islet cell cytoplasmic antibodies	Type 1 diabetes mellitus

25	Antiparietal cell, anti-intrinsic factor	Pernicious anemia
26	Anti-glomerular basement membrane	Goodpasture syndrome

Table : K 103.1

SURGERY

104. Trauma scoring systems

	Score	Components	Mnemonic
1	RTS		
2	TRISS		
3	MESS		
4	ISS		
5	GCS		

Table: L 104.1

105. GCS

FEATURE	RESPONSE	SCORE
Best eye response	Open spontaneously	4
	Open to verbal command	3
	Open to pain	2
	No eye opening	1
Best verbal response	Orientated	5
	Confused	4
	Inappropriate words	3
	Incomprehensible sounds	2
	No verbal response	1
Best motor response	Obeys commands	6
	Localizing pain	5
	Withdrawal from pain	4
	Flexion to pain	3
	Extension to pain	2
	No motor response	1

Table : L 105.1

Pupils Unreactive to Light	Pupil reactivity score
Both pupils	2
One pupil	1
Neither pupil	0
Note: the higher score is assigned to non reactive pupils	

Table : L 105.2

106. Liver scoring systems

	SCORE	COMPONENTS	MNEMONIC
1	CTP		
2	MELD		
3	MELD updated		
4	PELD		

Table: L 106.1

Child-Turcotte-Pugh Classification for Severity of Cirrhosis			
Clinical and Lab Criteria	Points*		
	1	2	3
Encephalopathy	None	Grade 1 or 2	Grade 3 or 4
Ascites	None	Mild to moderate (diuretic responsive)	Severe (diuretic refractory)
Bilirubin (mg/dL)	< 2	2-3	>3
Albumin (g/dL)	> 3.5	2.8-3.5	<2.8
Prothrombin time Seconds prolonged or International normalized ratio	<4 <1.7	4-6 1.7-2.3	>6 >2.3
*Child-Turcotte-Pugh Class obtained by adding score for each parameter (total points)			
Class A = 5 to 6 points			
Class B = 7 to 9 points			
Class C = 10 to 15 points			

Fig: L 106.1

107. Strasberg Classification

Bile duct injury	Bismuth	Strasberg
Cystic duct leak or leaks from small ducts in liver bed	-	A
Occlusion of an aberrant right hepatic duct	-	B
Leak from an aberrant right hepatic duct	-	C
Lateral injury to the common bile duct (>50% of the circumference)	-	D
Common hepatic duct stricture, stump>2 cm	Type I	E1
Common hepatic duct stricture, stamp<2 cm	Type II	E2
Hilar stricture with preserved biliary confluence	Type III	E3
Hilar stricture with involvement of confluence	Type IV	E4
Stricture of an aberrant right hepatic duct and to common hepatic duct	Type V	E5

Table : L 107.1

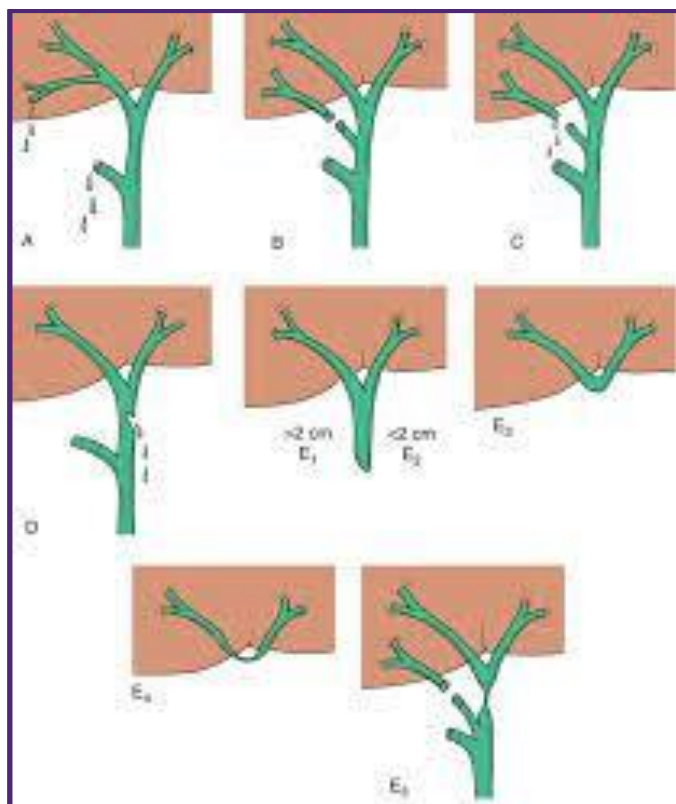
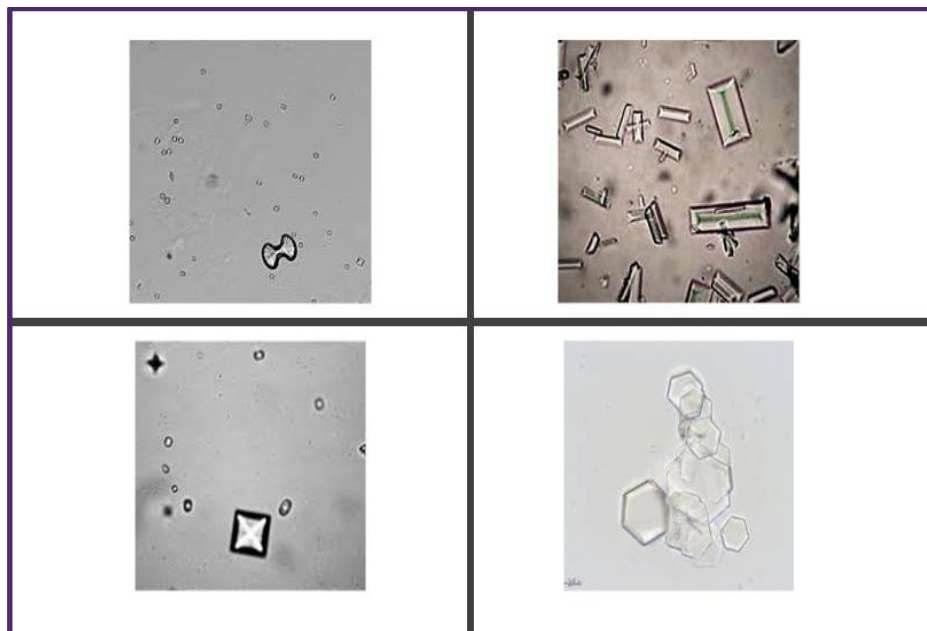


Fig: L 106.1

108. Urine crystals



Identify the urine crystal

- A. Cystine
- B. Calcium oxalate
- C. Uric acid
- D. Triple phosphate



109. Upper GI Bleed scores

Match the following:-

1.Forrest Score	A. assess after GI Bleeding (for adverse out come)- Clinical & endoscopic criteria	
2.Glasgow Blatchford score	b.stratifies severity of upper GI bleeding according to endoscopic findings	
3. Rockall scores	C. need for blood transfusion due to GI bleeding	

Table: L 109.1

Forrest Classification		Rebleeding
Type 1	Active bleeding	
	1a Spurting hemorrhage	90-100%
	1B Oozing Hemorrhage	80-85%
Type 2	Signs of recent bleeding	
	2a Non –bleeding visible vessel	40-50%
	2b Adherent clot on lesion	20-30%
	2c Hematin-covered lesion	5%
Type 3	Lesion Without bleeding	≤3%

Table: L 109.2

Risk marker		Score
Age	<60	0
	60-79	1
	>80	2
Shock index	No shock	0
	Pulse>100, SBP>100	1
	SBP<100	2
Comorbidity	No major comorbidity	0
	Major comorbidity	2
	Renal failure, Liver failure, metastatic cancer	3
Endoscopic diagnosis	Mallory-Weiss lesion	0
	All other diagnosis	1
	GI malignancy	2
Evidence of bleeding	None	0
	Blood, adherent clot, spurting vessel	2

Fig: L 109.1

Glasgow-Blatchford Score	
Glasgow-Blatchford Bleeding Score (GBS) helps identify which patients with upper GI bleeding (UGIB) may be safely discharged from the emergency room.	
Glasgow-Blatchford Score	
Blood urea nitrogen (mg/dL)	
18.2 to <22.4	2
22.4 to <28.0	3
28.0 to <70.0	4
≥70.0	6
Hemoglobin (g/dL)	
12.0 to <13.0 (men); 10.0 to <12.0 (women)	1
10.0 to <12.0 (men)	3
<10.0	6
Systolic blood pressure (mmHg)	
100-109	1
90-99	2
<90	3
Heart rate (beats per minute)	
≥100	1
Other markers	
Melena	1
Syncope	2
Hepatic disease	2
Cardiac failure	2

Fig: L 109.2

110. IV cannula color coding

Color of 20G iv cannula is

- A. Yellow
- B. Blue
- C. Pink
- D. Green



Fig: L 110.1

Size	Color coding	Flow rate	User
14G	Orange	270ml/min	Trauma patients, rapid, large volume replacement
16G	Grey	236ml/min	Trauma patients, major surgery, intra partum/post partum, GI bleeds, Multiple blood transfers, high volume of Fluids
17G	White	125ml/min	Newly added
18G	Green	103ml/min	Blood products, delivery of irritant medications, major surgery, contrast study
20G	Pink	67 ml/min	General use IV Maintenance, IV antibiotics IV analgesics
22G	Blue	42 ml/min	Small or Fragile veins, Cytotoxic Therapy
24G	Yellow	20 ml/min	For Pediatric usage
26G	Violet	13 ml/min	Newly added

Table: L 110.1

111. Vacutainer color coding

Hemoguard stopper	Tube Content	Determination
	Serum separator tube (SST)	All biochemistry not mentioned elsewhere (1 tube), microbiology (1 tube)
	Heparin	Chromosome studies, lead, amino acids, troponin
	Fluoride/oxalate	Glucose
	EDTA	Full Blood Count (FBC) and ESR, C3/C4, Hemoglobin A1c, Homocysteine, ACTH
	Plain (No additive)	LDH, Ca, Drugs (Phenytoin, Theophylline, Lithium), Endocrine testing (except Thyroid)
	Sodium citrate	Coagulation testing, PT, INR, APTT, D-Dimer, etc...
	ESR	Westergren Sedimentation Rate; requires full draw

Fig: L 110.1

Sr. No	Cap color	Additive	Use
1	Red		
2	Green		
3	Gray		
4	Violet		
5	Black		
6	Blue		
7	Gold		

Table: L 110.1



Fig: 110.2



Fig: 110.3

112. Thyroid scan

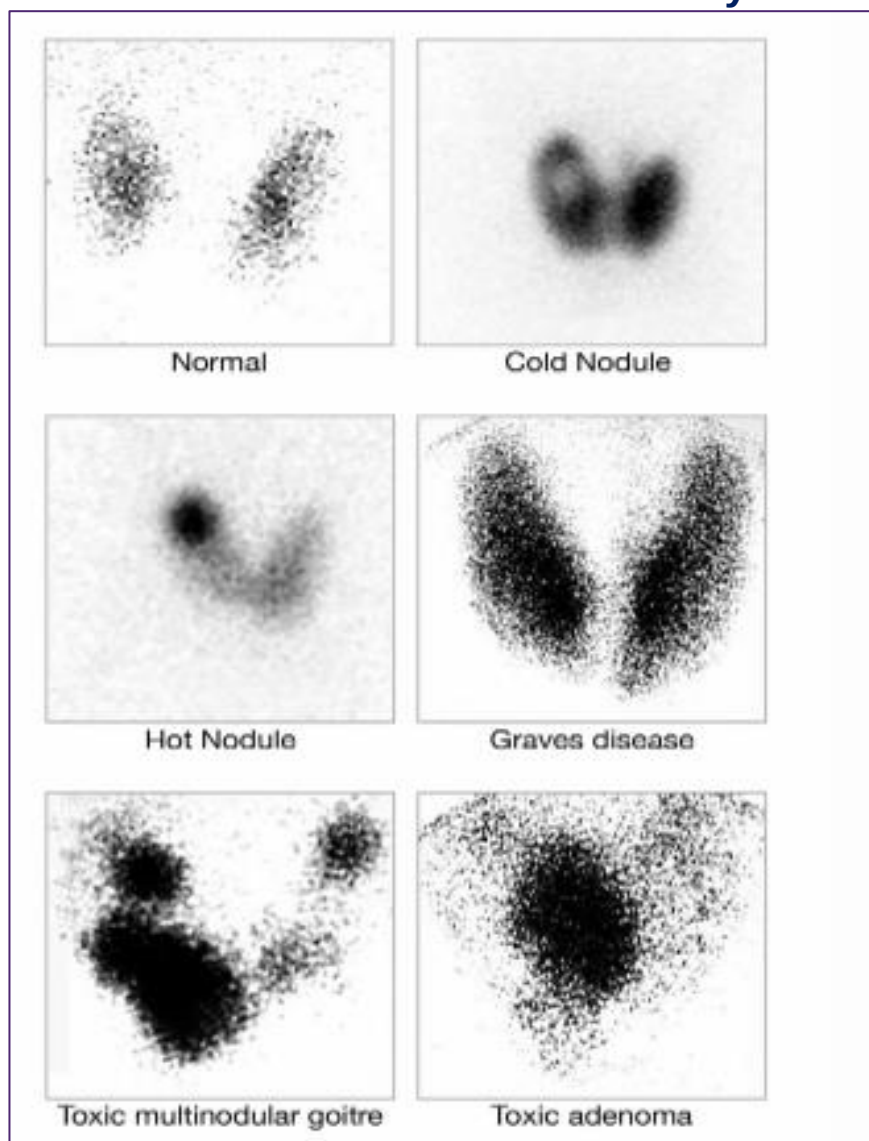
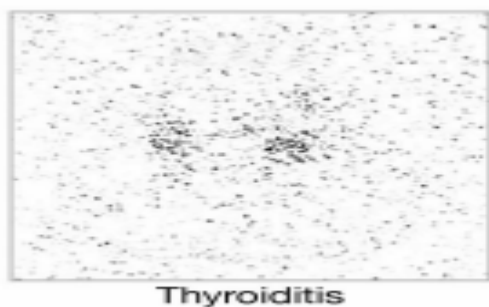


Table: L. 112.1



113. CEAP Classification -Chronic Venous Disease

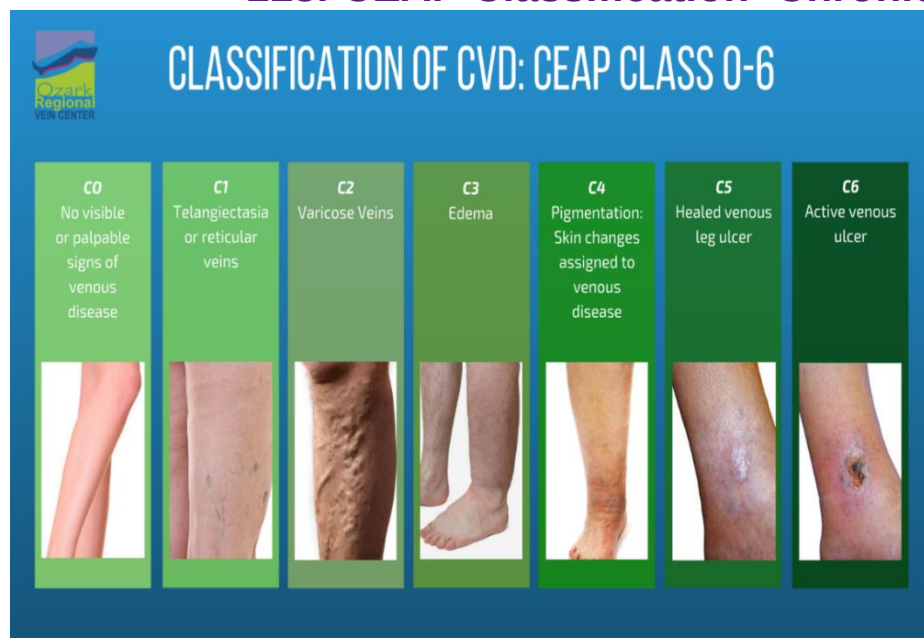


Fig: L 113.1

Clinical classification ©*	
C0	No visible or palpable signs of venous disease
C1	Telangiectases or reticular veins
C2	Varicose veins
C2r	Recurrent varicose veins
C3	Edema
C4	Changes in skin and subcutaneous tissue secondary To chronic venous disease C4a-Pigmentation or eczema C4b-Lipodermatosclerosis or atrophie blanche C4c-Corona phlebectatica
C5	Healed ulcer
C6	Active ulcer
C6r	Recurrent active venous ulcer

Table: L 112.1

MAGIC NOTES

Lined area for writing notes.



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OBGY

114. Ectopic pregnancy criteria

Which of the following criteria is used for abdominal pregnancy (AIIMS 2020)

- A. Rubin
- B. Spiegelberg
- C. Studdiford
- D. All of the above

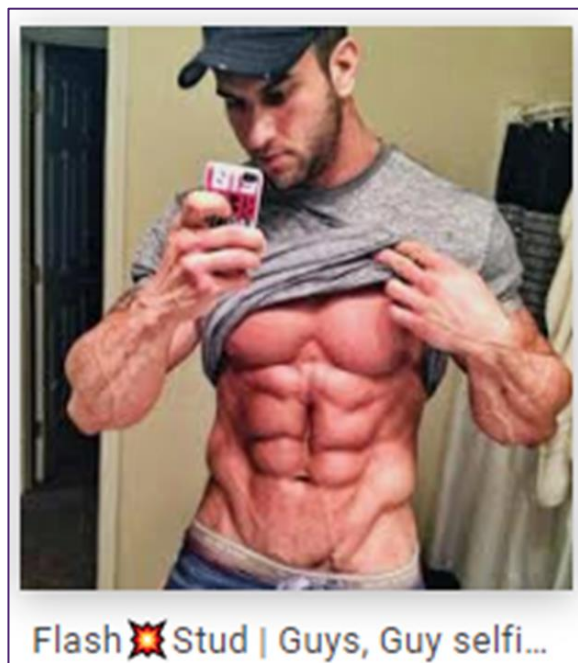


Fig: M 114.1

115. Obstetric Maneuvers

All of the following maneuvers are used in breech delivery except

- A. mauriceau smellie veit maneuver
- B. Prague
- C. Lovset
- D. Zavanelli

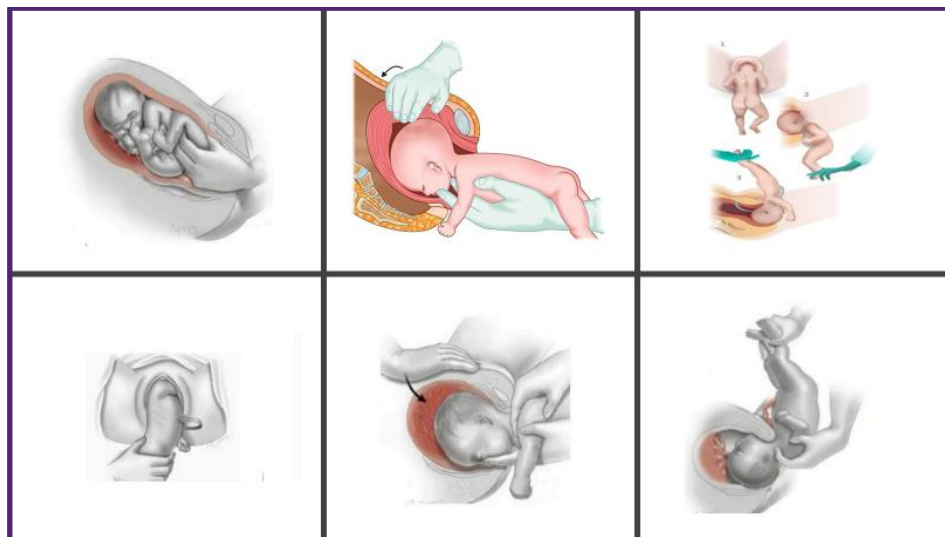


Fig: M 115.1

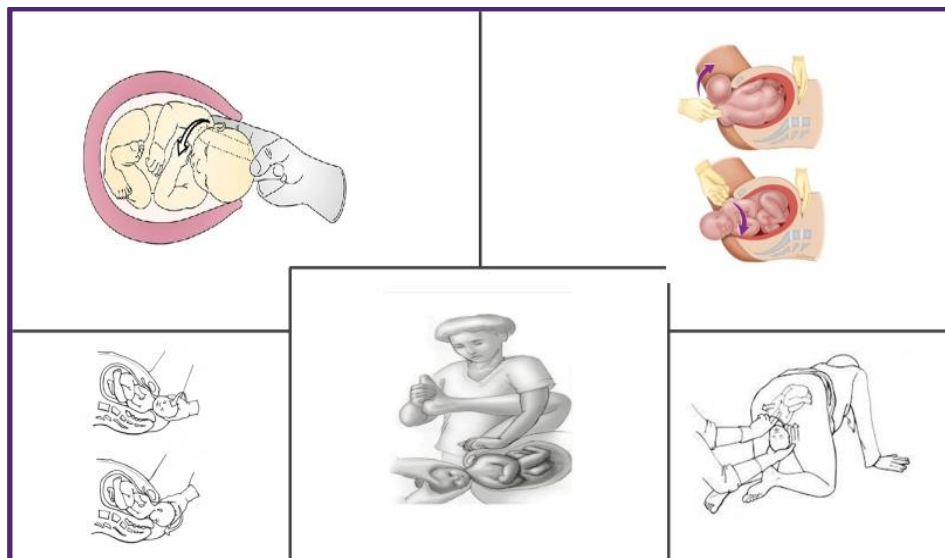


Fig: M 115.2

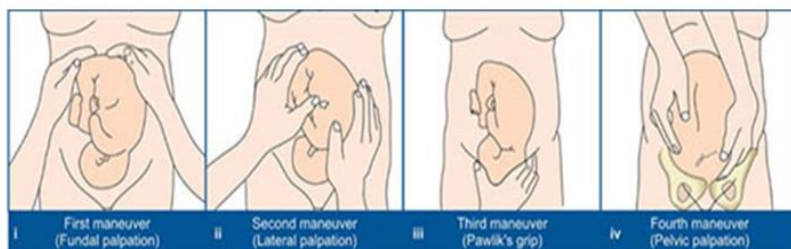


Fig: M 115.3

116. Dual/Triple/ Quadruple Marker Test

Triple test for diagnosis of Down syndrome includes all of the following except

- A. Beta hcg
- B. Estriol
- C. Inhibin
- D. AFP

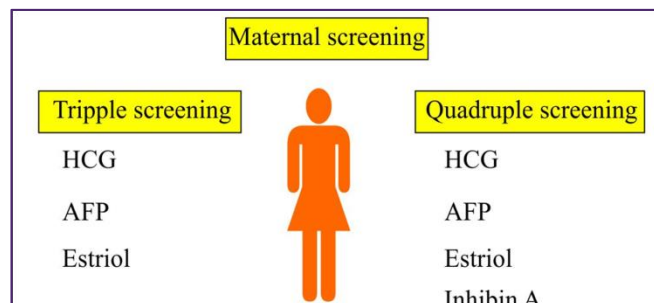


Fig: M 116.1

Quadruple test for diagnosis of Down syndrome includes all of the following except (INICET 2021)

- A. Beta hcg
- B. Estriol
- C. Inhibin A
- D. Inhibin B
- E. AFP

Anomaly	AFP	hCG	uE3
NTDs	Increased	Normal	Normal
Trisomy 21	Decreased	Increase	Decreased
Trisomy 18	Decreased	Decreased	Decreased

Table: M 116.1

Alpha fetoprotein levels are increased in all of the following except

- A. Open neural tube defects
- B. Renal anomalies
- C. Down syndrome
- D. Anterior abdominal wall defects

117. Ovarian tumors classification

I. Common epithelial tumors

- Serous tumors
- Mucinous tumors
- Endometroid tumors
- Clear cell
- Brenner tumors (transitional cell tumors)
- Seromucinous Undifferentiated carcinoma

II. Sex cord-stromal tumors:

- Pure stromal cell tumors- Fibroma. Thecoma. Leydig cell tumor. Steroid cell tumor
- Pure sex cord tumors- Granulosa cell tumor (Adult/Juvenile). Sertoli cell tumor
- mixed sex cord-stromal tumors- Sertoli-Leydig cell tumors

III. Germ cell tumors:

Ovarian dysgerminoma
 Endodermal sinus tumor (Yolk sac tumor)
 Embryonal carcinoma
 Polyembryoma
 Non-gestational chondrosarcoma
 Teratoma (Mature/immature)
 Mixed forms

IV. Gonadoblastoma

- Pure
- Mixed with dysgerminoma or other germ cell tumors

V. Soft tissue tumors not specific to ovary

VI. Miscellaneous tumors

VII. Secondary (metastatic) tumors

VIII. Tumor-like conditions

My sister began experiencing Cancer

Doctor examined the cancer

She felt good

Brenner tumor is

- Germ cell tumor
- Epithelial tumor
- Sex cord- stromal tumor
- Metastatic tumor

118. Ovarian tumor - Bodies & tumor markers

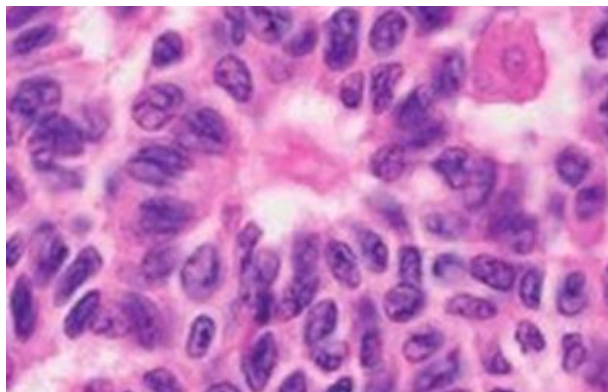


Fig:M 118.1

Tumor marker in this tumor is (Inicet N21 – MTC)

- A. AFP
- B. Inhibin
- C. LDH
- D. PLAP

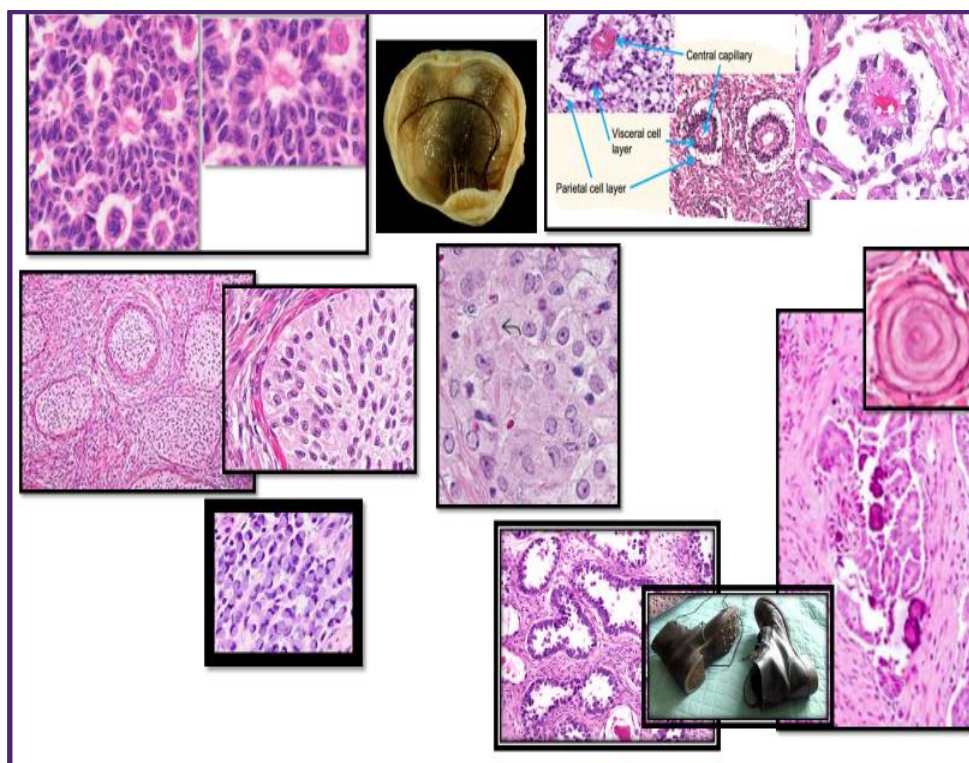


Fig: M 118.2

<i>Ovarian tumor</i>	<i>Tumor marker</i>	<i>Associated feature</i>
Epithelial ovarian tumors	CA-125, CA-19-9 CEA	Psammoma Bodies (Serous Epithelial tumor)
Endodermal sinus tumor	AFP	Schiller duval bodies
Dysgerminoma	LDH, PLAP	Lymphocytic infiltration
Embryonal Carcinoma	AFP, HCG	-
Mature teratoma	-	Rokitansky protruberance
Granulosa cell tumor	Inhibin	Call-Exner bodies
Hilus cell tumor	-	Reinke's crystal
Brenner tumor	-	Walthard cell nest
Krukenberg tumor	-	Signet-ring cell
Clear cell tumor	-	Hobnail cell

Table: M 118.1

119. Twins - Lambda vs T sign

T sign on antenatal USG is seen in

- A. DCDA
- B. MCDA
- C. MCMA
- D. DCMA



Fig: M 119.1

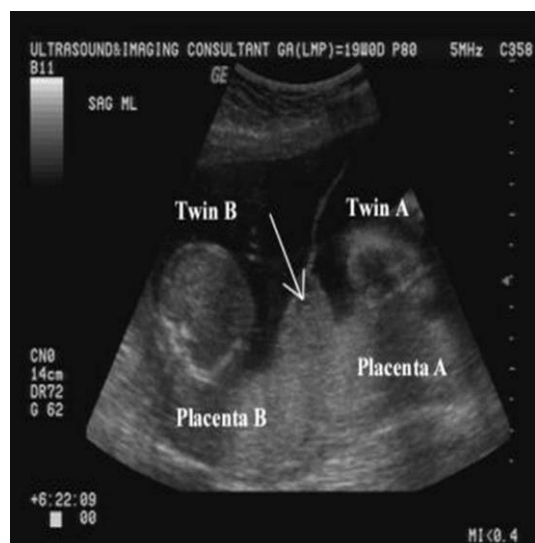


Fig: M119.2

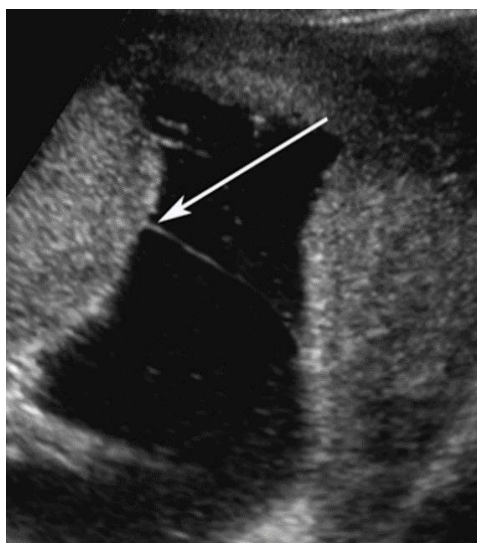


Fig: M 119.3

120. Bishop score

Not a component of modified Bishop score

- A. Cervical consistency
- B. Fetal station
- C. Cervical effacement
- D. Cervical position

Modified Bishop score				
Score	0	1	2	3
Dilatation of Cervix (cm)	0	1 or 2	3 or 4	5 or more
Consistency of cervix	Firm	Medium	Soft	-
Length of cervical Canal (cm)	>2	2-1	1-0.5	<0.5
Position of cervix	Posterior	Central	Anterior	-
Station of presenting part	-3	-2	-1 or 0	Below spines

Table: M 120.1

121. Vaginal infections

		Bacterial vaginosis	Trichomonas vaginalis	Candida
1	Discharge			
2	Itching			
3	pH			
4	Sexual transmission			
5	Strawberry cervix			
6	Whiff test			
7	Clue cells			
8	Treatment			

Table: M 121.1

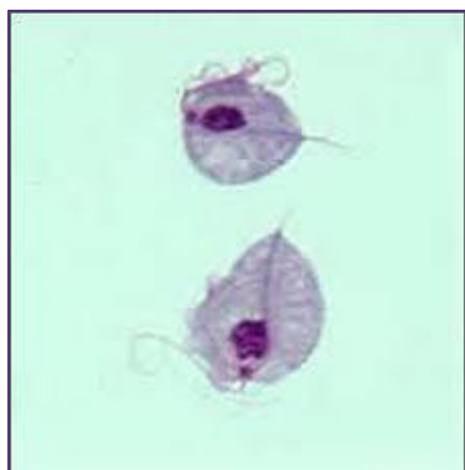


Fig: M 121.1

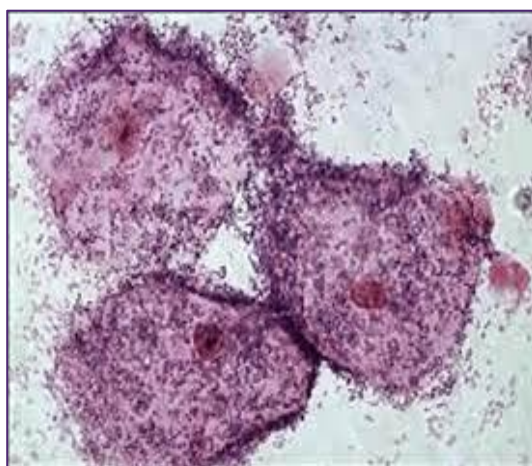


Fig: M 121.2

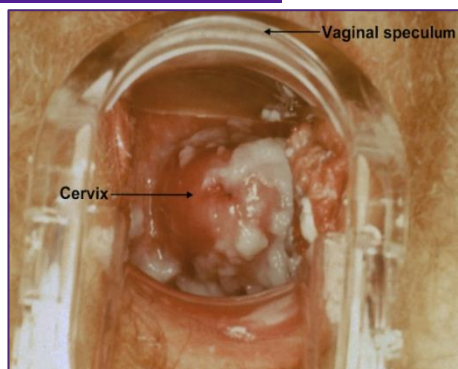


Fig: M 121.3



Fig: M 121.4

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PEDIATRICS

122. Congenital adrenal hyperplasia

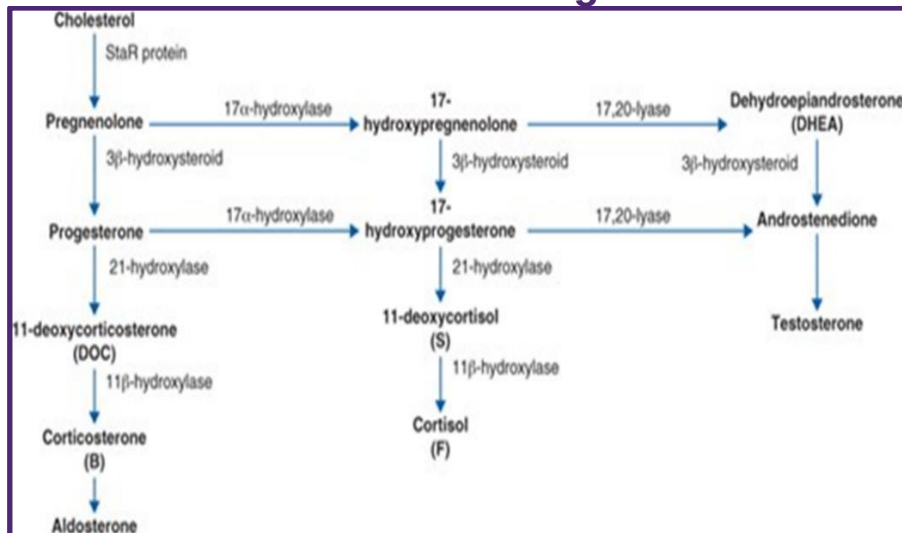


Fig: N 122.1

Deficiency of cortisol and aldosterone; 1 in testosterone	Deficiency of cortisol and sex hormones; 1 in aldosterone	Deficiency of cortisol; 1 in deoxycorticosterone (mineralocorticoid) and testosterone	Deficiency of cortisol, aldosterone and testosterone; 1 in DHEA
Salt wasting crisis	Salt retention and hypertension	Salt retention and hypertension	Salt-wasting crisis
Virilization of females (ambiguous genitalia 46XX)	Failure of sexual development in females at puberty	Virilization of females (ambiguous genitalia 46XX)	Females are mildly virilized (DHEA is a weak androgen)
Precocious puberty in males	Males are incompletely virilized (ambiguous genitalia 46XY)	Precocious puberty in males	Males are incompletely virilized (ambiguous genitalia 46XY)

Table: N 122.1

123. Malnutrition

Sr. No	Nutritional status	Criteria (from birth to 5 years)
1		Weight-for-height/length >3 SD BMI-for-age >3 SD
2		Weight-for-height/length >2 SD and <3 SD BMI-for-age >2 SD and <3 SD
3		Weight-for-age <-2 SD and >-3 SD
4		Weight-for-age <-3 SD
5		Weight-for-height/length <-2 SD and >-3 SD BMI-for-age <-2 SD and >-3 SD Mid-upper arm circumference >115 mm and <125 mm
6		Weight-for-height/length <-3 SD BMI-for-age <-3 SD Mid-upper arm circumference <115 mm Bilateral pitting edema
7		Height/Length-for-age <-2 SD and >-3 SD
8		Height/Length-for-age <-3 SD
9		Weight-for-height/length <-2 SD and >-3 SD
10		Weight-for-height/length <-3 SD

Table: N 123.1

Marasmus	Kwashiorkor
Seen in infants less than 1 year of age	Seen in older children (6 months to 3 years of age)
Total calorie deficit	Protein deficit
NO edema	Edema is prominent
Voracious appetite, no apathy	Apathy and loss of appetite
Severe muscle wasting	Muscle wasting mild or absent
Prominent ribs	Protuberant abdomen
No Fatty liver, no subcutaneous fat	Fatty liver, Subcutaneous fat preserved

Table: N 123.1

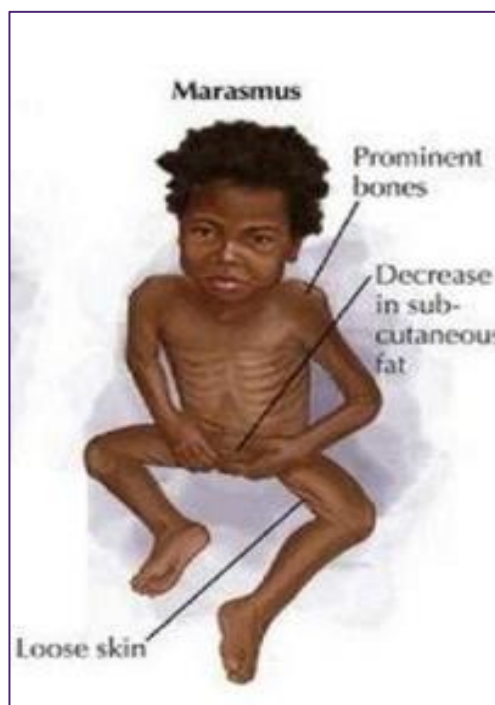


Fig: N 123.1

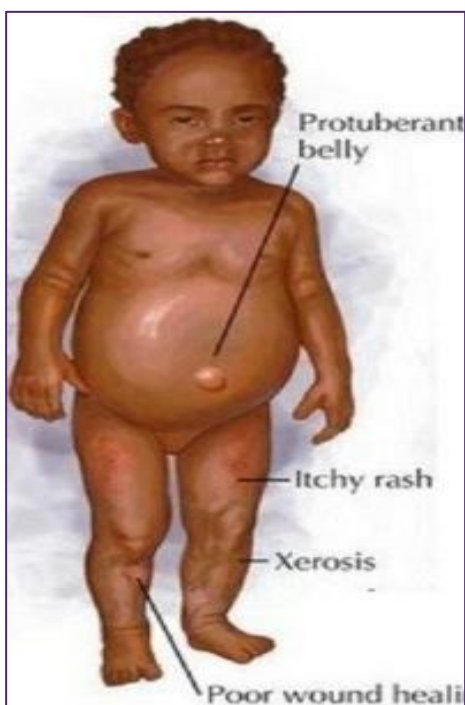


Fig: N 123.2

124. Scores in Pediatrics - APGAR , Silverman Anderson

APGAR score

- Systems tested -
- Min score
- Max score
- Normal

	Score of 2	Score of 1	Score of 0
Appearance	Body and extremities have a pink appearance.	Pink body with blue extremities	Body and extremities are blue.
Heart rate (Pulse)	Greater than 100/min	Less than 100/min	No heartbeat auscultated
Grimace (reflex irritability to tactile stimulation)	Cries, coughs, or sneezes	Facial grimace, weak cry	No response to stimulation
Activity (muscle tone and movement)	Good flexion and movement	Limited flexion	Limp
Respiration	Regular breathing with a strong cry	Irregular breaths, weak or slow breathing	No breath sounds auscultated

Table: N 124.1

❖ Silverman Anderson score

	Upper chest	Lower chest	Xiphoid retract	Nares dilate	Exp. grunt
Grade 0					
	Synchromed	No retraction	None	None	None
Grade 1					
	Lag on ISP	Just visible	Just visible	Minimal	Stethos only
Grade 2					
	See-saw	Marked	Marked	Marked	Naked ear

Fig: N 124.1

125. Important Milestones

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DERMATOLOGY

126. STI

Sr. No	Disease	Pathogen	Magic Points
1	Syphilis		
2	Chancroid		
3	LGV		
4	Granuloma inguinale		
5	Genital Herpes		

Table: O 126.1

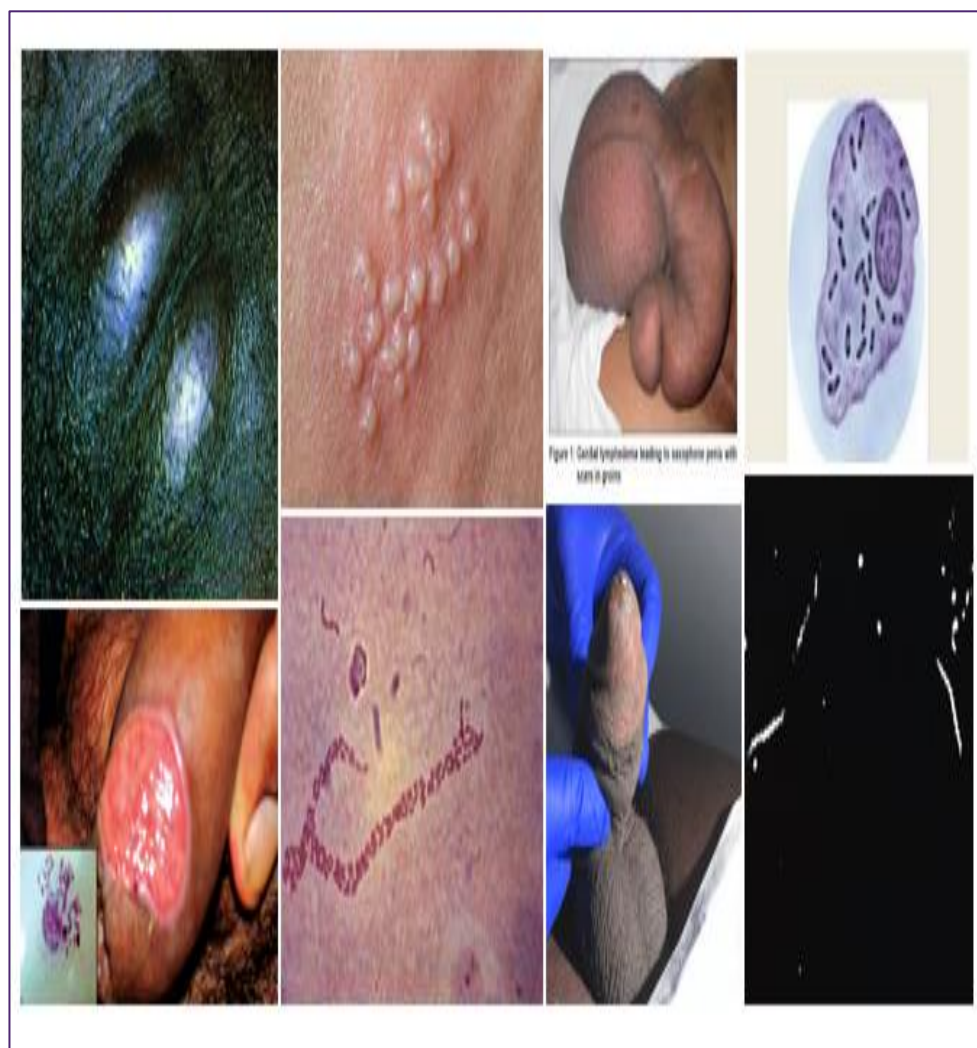


Fig: O 126.1

PSYCHIATRY

127. Personality disorders

Cluster A (Odd, Weird, Eccentric)	Paranoid - Suspicious, distrustful, hypervigilant	
	Schizoid -Prefers to be loner, detached, unemotional	
	Schizotypal - Eccentric & odd thoughts, perceptions & behavior, magical thinking and beliefs	
Cluster B (Dramatic, Emotional and Erratic)	Borderline -Chaotic relationships, sensitivity to abandonment, labile mood, Impulsivity, Inner emptiness, self-harm	
	Histrionic -Dramatic, superficial, attention-seeking	
	Antisocial -Disregard for and violation of rights of others, illegal activities	
	Narcissistic -Grandiosity, lack of empathy	
Cluster C (Anxious, Fearful, Introvert)	Avoidant -Avoidance due to fears of criticism and rejection	
	Dependent- Submissive, clingy, needs to be taken care of	
	Obsessive compulsive / Anankastic - Rigid, controlling, perfectionist	

Table: P 127.1

Orthopedics

128. Trendelenburg sign

When standing on the right leg, if the left hip drops, it is injury to

- A. Right superior gluteal nerve
- B. Left superior gluteal nerve
- C. Right inferior gluteal nerve
- D. Left inferior gluteal nerve

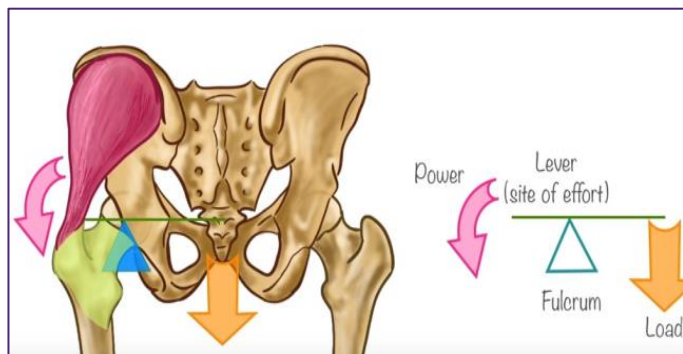


Fig: Q 128.1

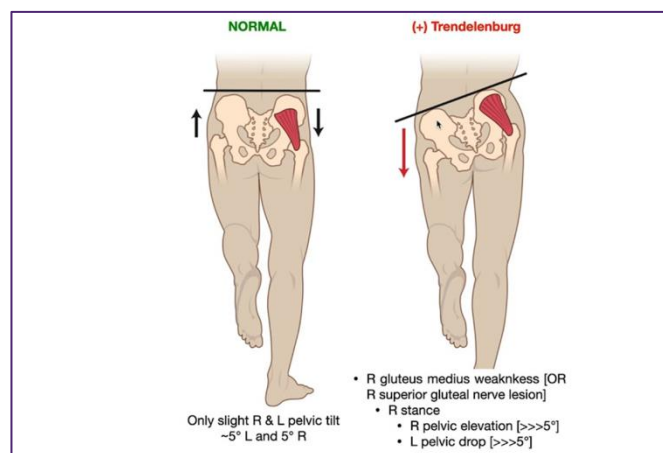


Fig: Q 128.2

129. casts, splints, braces

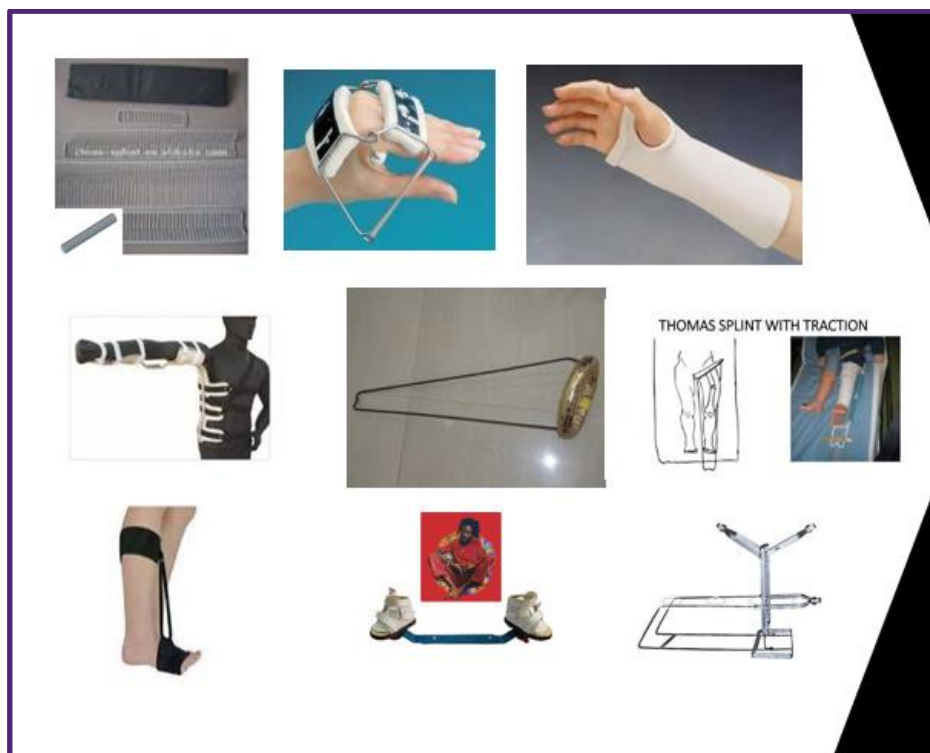


Fig: Q 129.1

Cramer-wire splint	Emergency immobilisation
Thomas splint	Fracture femur - anywhere
Bohler-Braun splint	Fracture femur - anywhere
Aluminium splint	Immobilisation of fingers
Dennis Brown splint	CTEV
Cock-up splint	Radial nerve palsy
Knuckle-bender splint	Ulnar nerve palsy
Toe-raising splint	Foot drop
Volkman's splint	Volkman's ischaemic contracture (VIC)
Four-post collar	Neck immobilisation
Aeroplane splint	Brachial plexus injury
SOMI brace	Cervical spine injury
ASHE (Anterior spinal hyper extension)	Dorso-lumbar spinal injury brace
Taylor's brace	Dorso-lumbar immobilisation
Milwaukee brace	Scoliosis
Boston brace	Scoliosis
Lumbar corset	Backache

Fig: Q 129.2

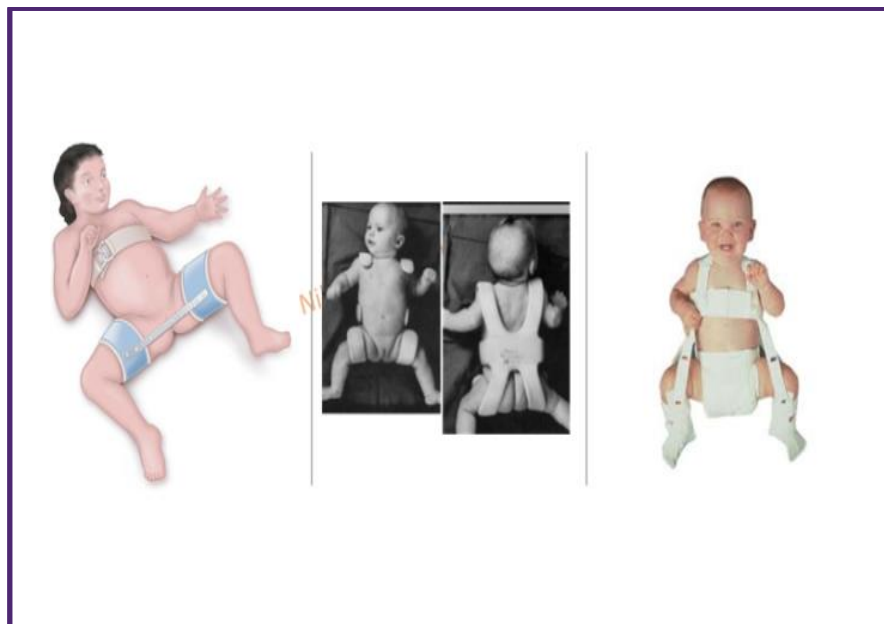


Fig: Q 129.3



Fig: Q 129.4

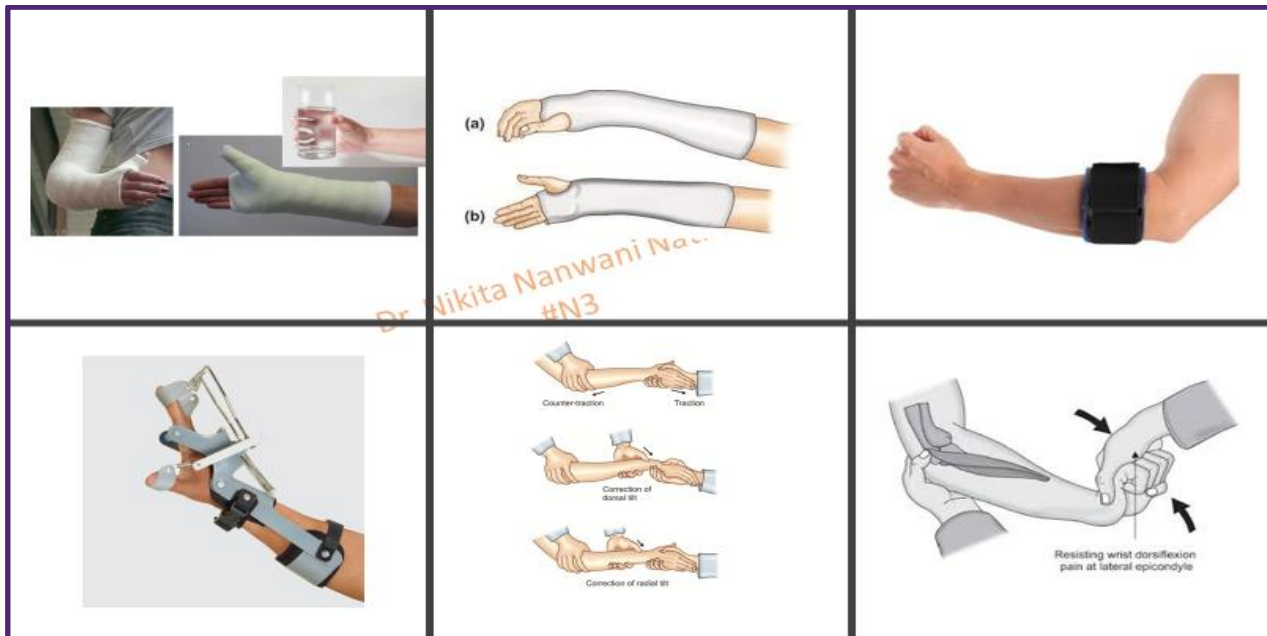


Fig: Q 129.5

130. Named fractures - Upper Limb

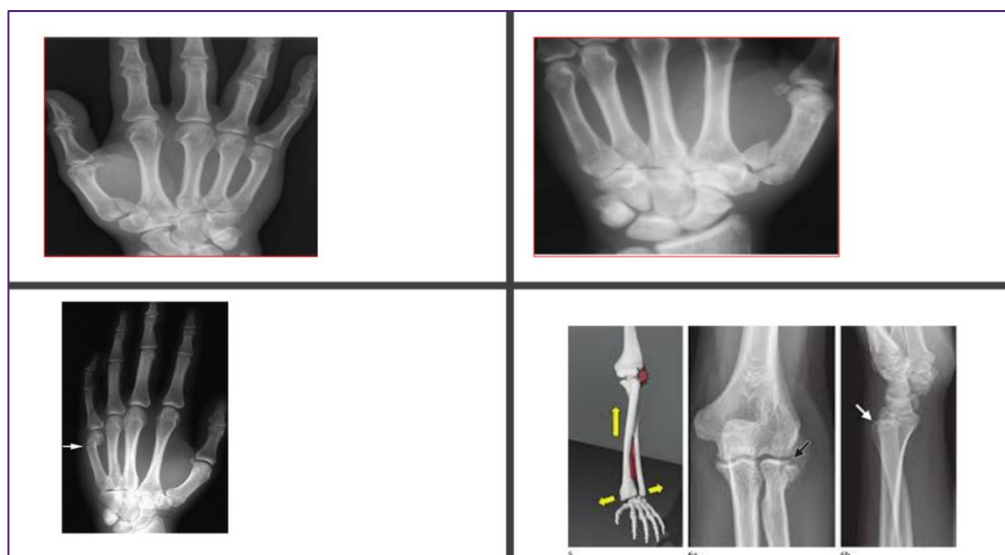


Fig: Q 130.1

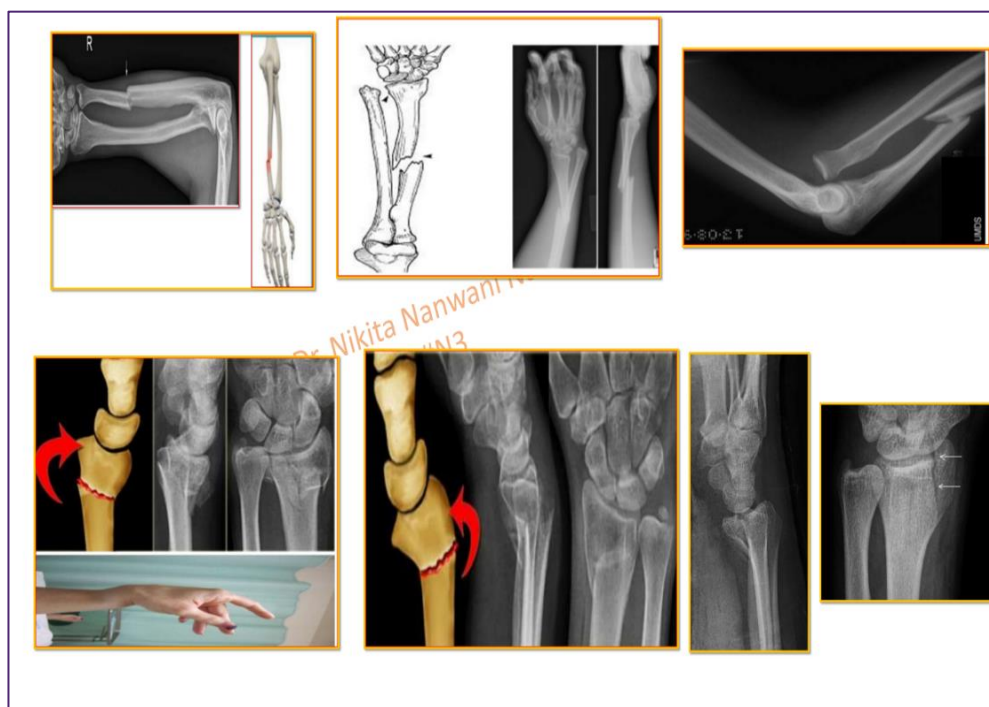


Fig: Q 130.2

131. Named fractures - Lower limb



Fig: Q 131.1

Fracture	Location
Bumper fracture	Comminuted fracture of lateral condyle of tibia
Pilon fracture	Comminuted intra-articular fracture of the distal end of the tibia
Tillaux fracture	Avulsion fracture of the tibia by the anterior tibiofibular ligament
Runner's fracture	Fracture of the distal shaft of fibula
Pott's fracture	Bimalleolar ankle fracture
Cotton's fracture	Trimalleolar ankle fracture
Aviator's fracture	Fracture of neck of talus
Chopart's fracture	Fracture between talonavicular and calcaneocuboid joints
Lisfranc's fracture-dislocation	Fracture of metatarsal bases with associated tarsometatarsal dislocation
March fracture	Fracture of the neck of 2 nd or 3 rd metatarsal
Jone's fracture	Extra-articular fracture at the base of the 5th metatarsal
Dancer's fracture	Fracture of distal shaft of the fifth metatarsal

Fig: Q 131.2

132. Named fractures - Vertebrae , pelvis

- Burst fracture –vertical compression injury
- Chance fracture –horizontal fracture of the vertebral body
- Clay-shoveller's fracture spinous process fracture of C6,C7 or T1
- Dens fracture Odontoid process fracture
- Hangman's fracture – fracture of both pedicles of C2
- Jefferson's fracture –fracture of first cervical vertebra
- Motorcyclist's fracture –transverse fracture across base of the skull

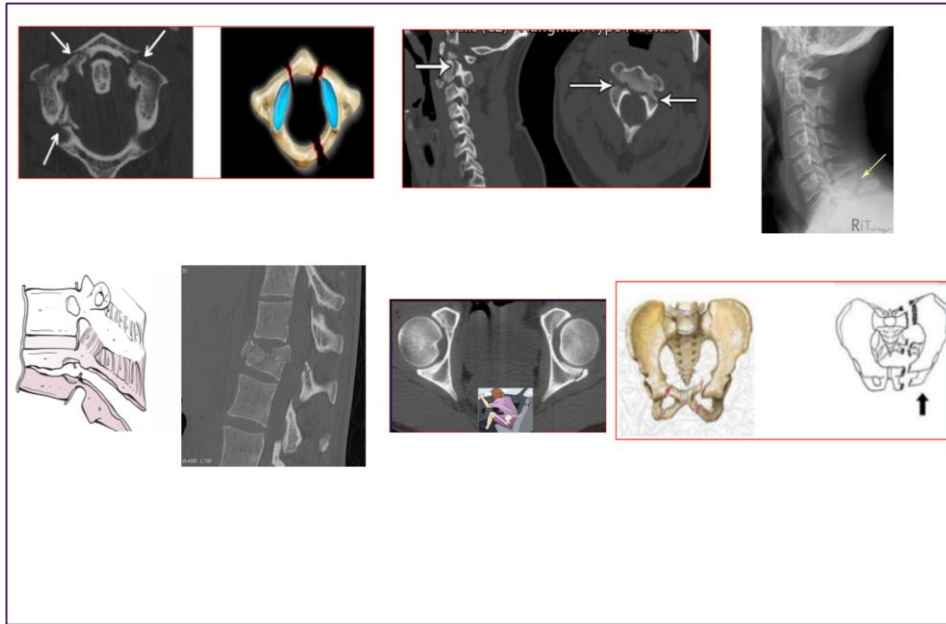


Fig: Q 132.1

133. Osteochondritis

Osteochondritis	Bones affected
Kienbock	Lunate
Scheuermann	Ring epiphysis of the vertebra
Osgood-schlatter	Tibial tuberosity
Sever	Calcaneum
Kholler	Navicular bone
Freiberg	Second (or 3 rd , 4 th 5 th)metatarsal head
Iseling	Fifth metatarsal base

Table: Q 133.1

134. Angles

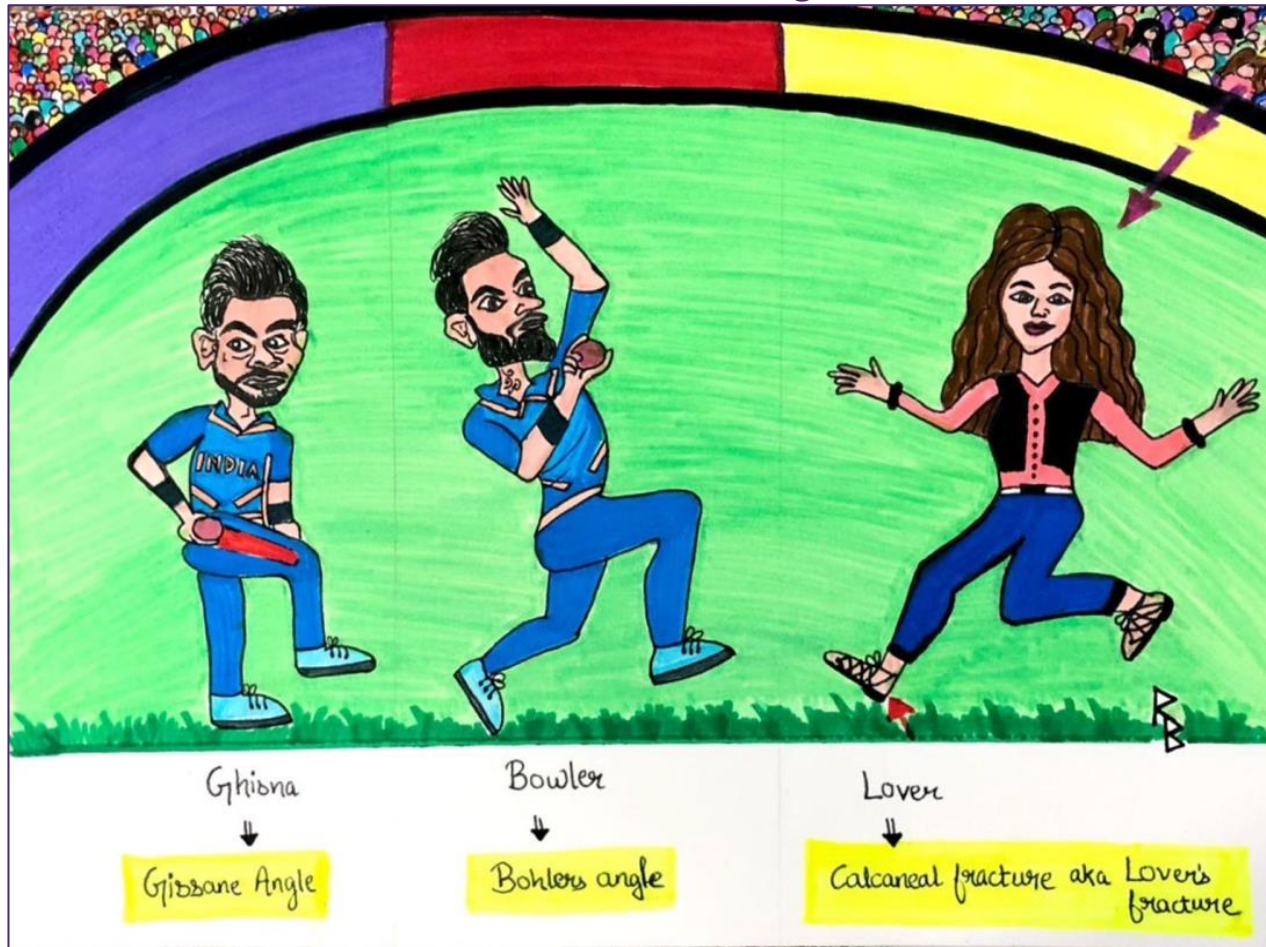


Fig: Q 134.1



Fig: Q 133.2



Fig: Q 133.3

Angles	Conditions
Carrying angel	Cubitus varus and cubitus valgus
Baumann's anele	Elbow fractures
Cobb's angle	Scoliosis
Alpha angle Beta angle	Development dysplasia of hip
Southwick angle	Slipped capital femoral epiphysis
Neck shaft angle	Coxa vara
Q angel	Patellar alignment
Kite's angle	Congenital talipes equinus varus
Meary's angle	Pes cavus
Bohler's angle Gissane's angle	Fracture of calcaneum

Table: Q 133.1

135. Metabolic bone disorders

Metabolic bone disease	Calcium	PTH	Phosphate	ALP
Rickets/Osteomalacia	↓/N	↑	↓	↑
Primary Hyperparathyroidism	↑	↑	↓	↑
Secondary Hyperparathyroidism	↓	↑	↑	↑
Tertiary hyperparathyroidism	↑	↑	↑	↑
Osteoporosis	N	N	N	N
Paget's disease	N	N	N	
Osteopetrosis	↓/N	↑/N	↓/N	N

Table: Q 133.2

136. Bone tumors



Fig: Q 136.1



Fig: Q 136.2



Fig: Q 136.3

MAGIC NOTES



MAGIC NOTES

Lined area for writing notes.



ANESTHESIA

137. Mapleson circuit

Mapleson system	Fresh gas flow inlet	APL valve location	Reservoir bag	Corrugated Tubing	Example and comments
A	Near bag	Near patient	Present	Present	Magill; Lack (co-axial)
B	Near patient	Near patient	Present	Present	Obsolete
C	Near patient	Near patient	Present	Absent	Obsolete; still used in emergency resuscitation (AMBU bag)
D	Near patient	Away from patient present	Present	Present	Bain (co-axial)
E	Near patient	Absent	Absent	Present	Ayre's T piece
F	Near patient	Absent	Present	Present	Jackson rees Modification for Pediatric patients

Table : R 137.1

Identify the given Mapleson circuit

- a) B
- b) D
- c) A
- d) F
- e) E

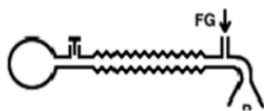


Fig: R 137.1

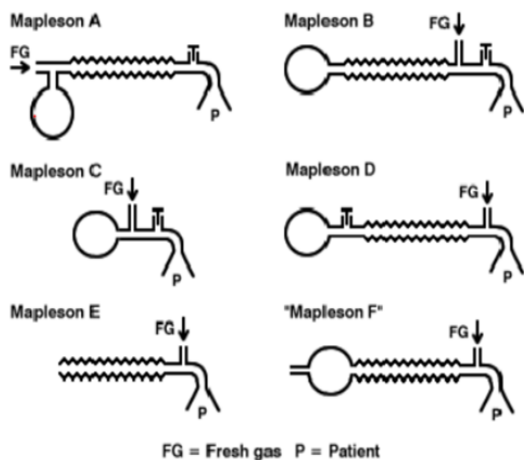
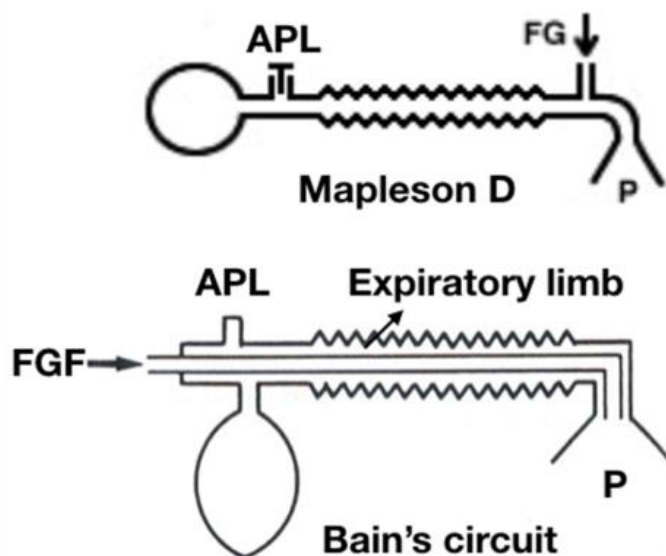


Fig: R 137.2



138. Cylinder color coding

GAS	SHOULDER	BODY
OXYGEN	WHITE	BLACK
NITROUS OXIDE	BLUE	BLUE
CYCLOPROPANE	ORANGE	ORANGE
CARBON DI OXIDE	GREY	GREY
AIR	WHITE	GREY
NITROGEN	BLACK	BLACK
ENTONOX	WHITE	BLUE

Table: R 138.1

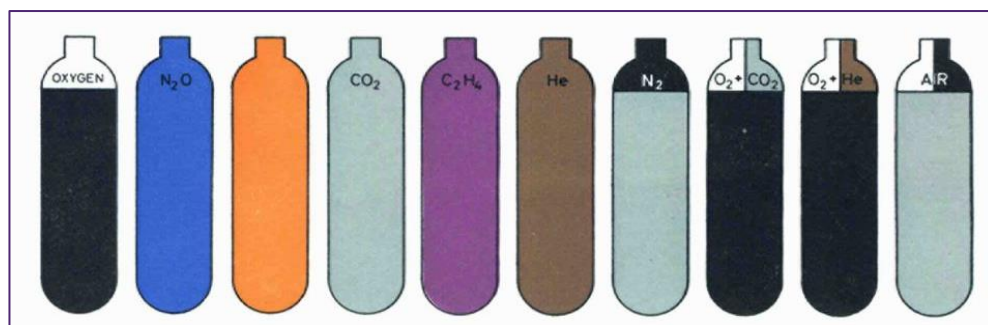


Fig: R 138.1



Fig: R 138.2

139. Pin index system

Cylinder	Pin index
Air	
O ₂	
N ₂ O	
CO ₂	
cyclopropane	
Entonox	

Table: R 139.1

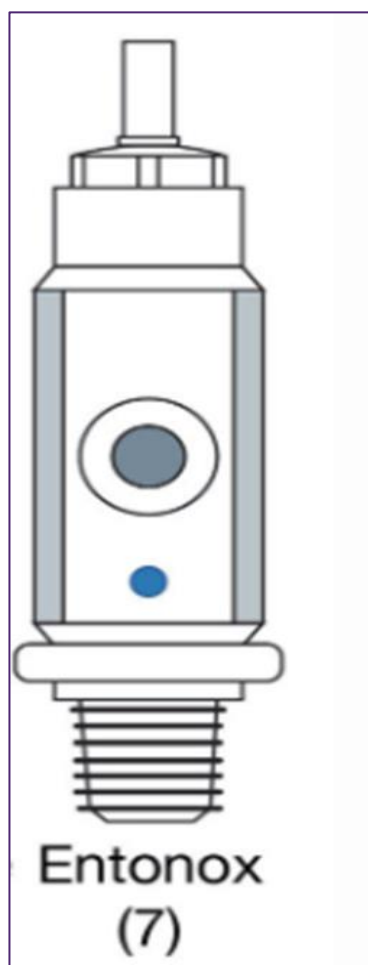


Fig: R 139.1

MAGIC NOTES

Lined area for taking notes, featuring horizontal ruling lines and a central watermark for WISDOM MEDICAL ACADEMY.

MAGIC NOTES

Lined area for taking notes.



DATE	DATE	DATE	DATE	DATE
1st Revision	2nd Revision	3rd Revision	4th Revision	5th Revision

MAGIC TRACKER

RADIOLOGY

140. Emergency Radiology images

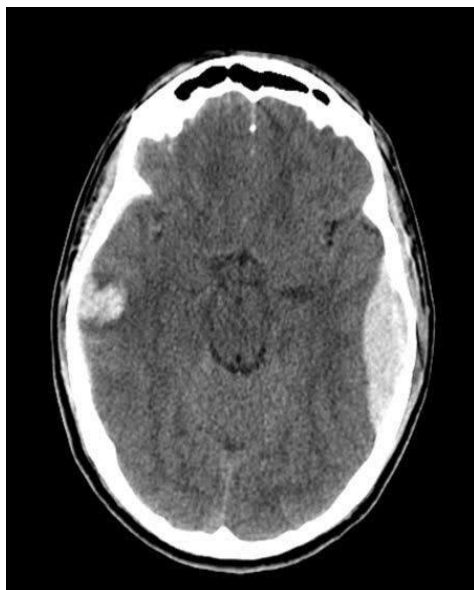


Fig: S 140.1



Fig: S 140.2



Fig: S 140.3



Fig: S 140.4

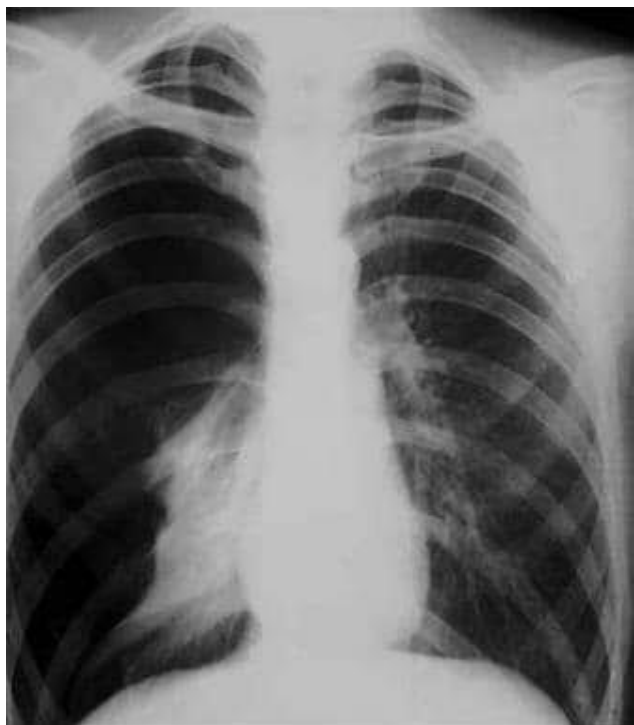


Fig: S 140.5

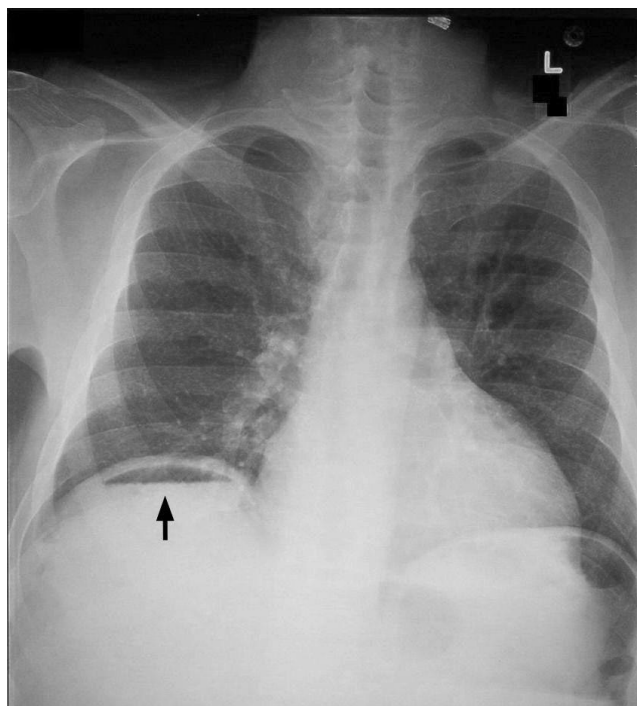


Fig: S 140.6

141. Frequently asked Radiology Images

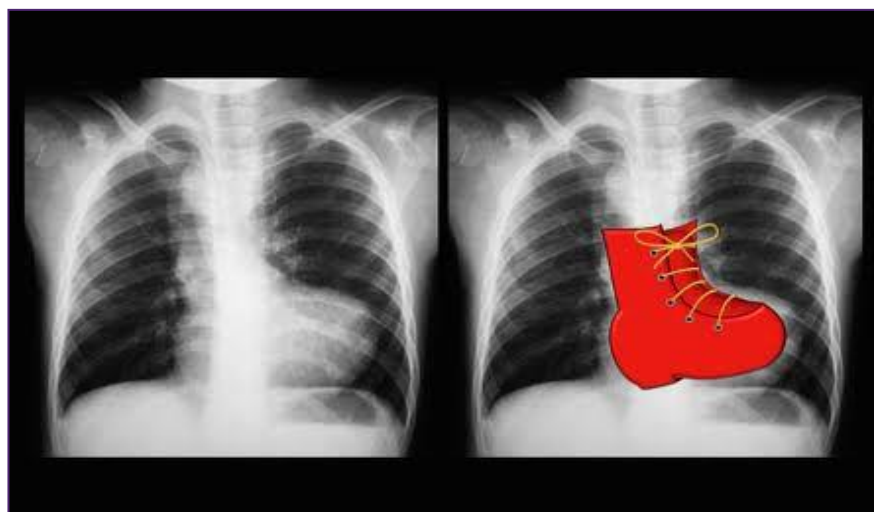


Fig: S 141.1



Fig: S 141.2

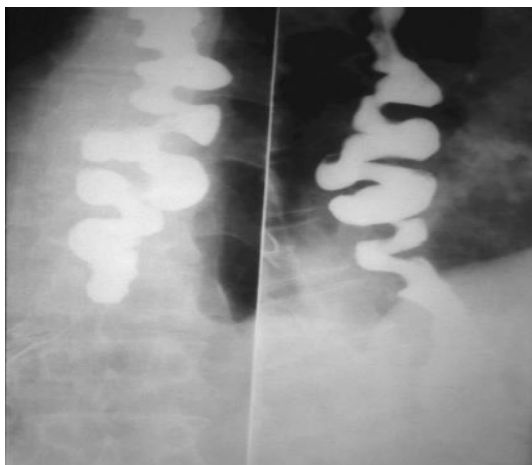


Fig: S 141.3

142. Visual field defects

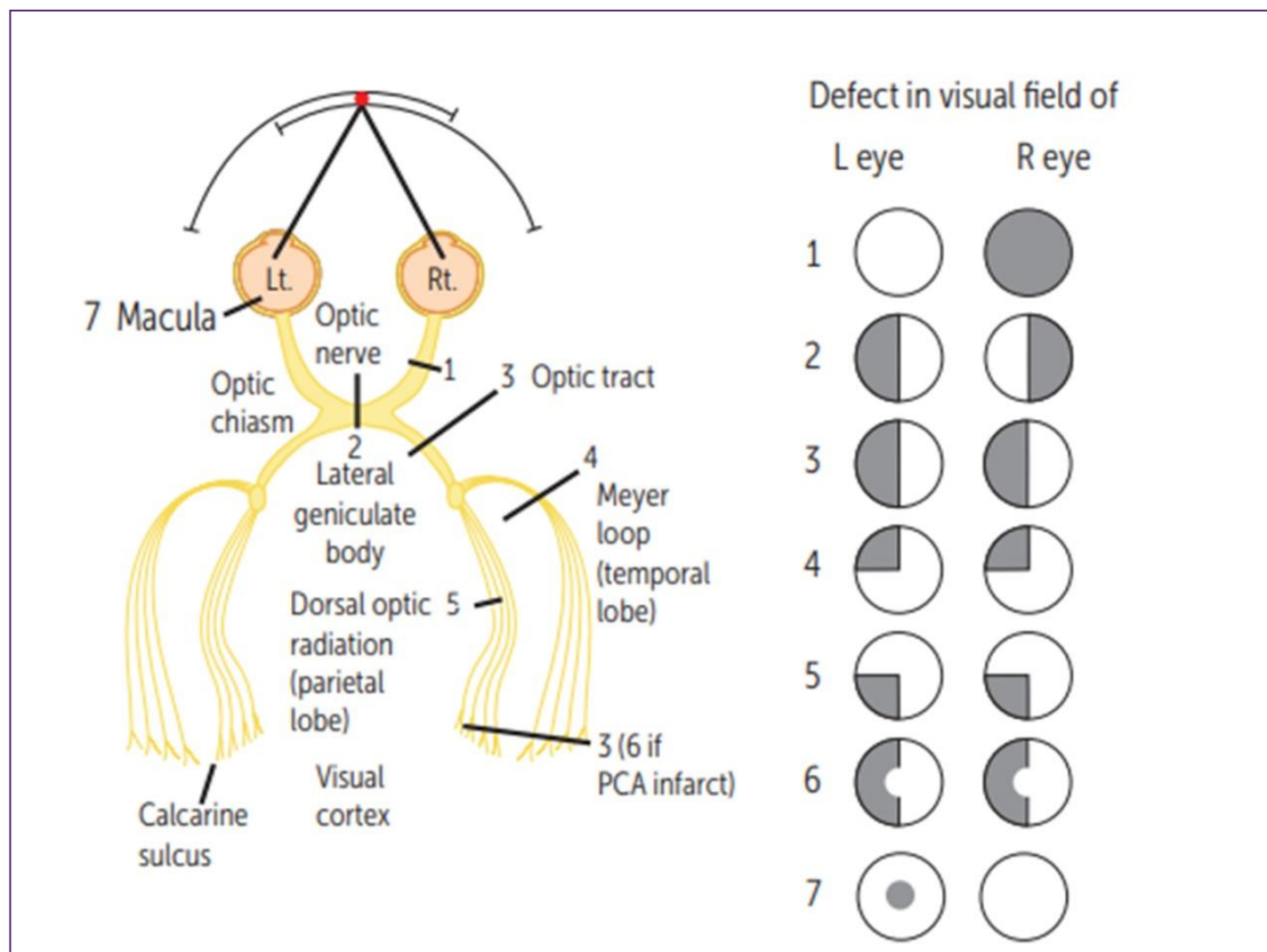


Fig: S 142.1

A	Inhibit protein synthesis	Corynbecaterium diphtheriae
		Pseudomonas
		Shigella
		EHEC
B	Increase fluid secretion	Cholera
		Anthrax
		ETEC Heat labile
		ETEC Heat stable
		Pertussis (Phagocytosis also)
C	Inhibit neurotransmitter release	Clostridium tetani
		Clostridium botulinum
D	Lyse cell membrane	Clostridium perfringens
		Streptococcus pyogenes
E	Superantigens causing shock	Staph aureus
		Streptococcus pyogenes

143. Bacterial toxins MOA

Table: S 143.1

144. Immunodeficiency disorders

	Disorder	Magic Points
1	Bruton's agammaglobulinemia	
2	Common variable immunodeficiency	
3	Hyper IgM syndrome	
4	Di George	
5	SCID	
6	Chronic granulomatous disease	
7	Chediak-Higashi	

8	Leukocyte adhesion deficiency	
9	Wiskott Aldrich syndrome	
10	Ataxia Telangiectasia	
11	X linked lymphoproliferative synd	
12	Hyper IgE syndrome	
13	Selective IgA deficiency	

Table: S 144.1

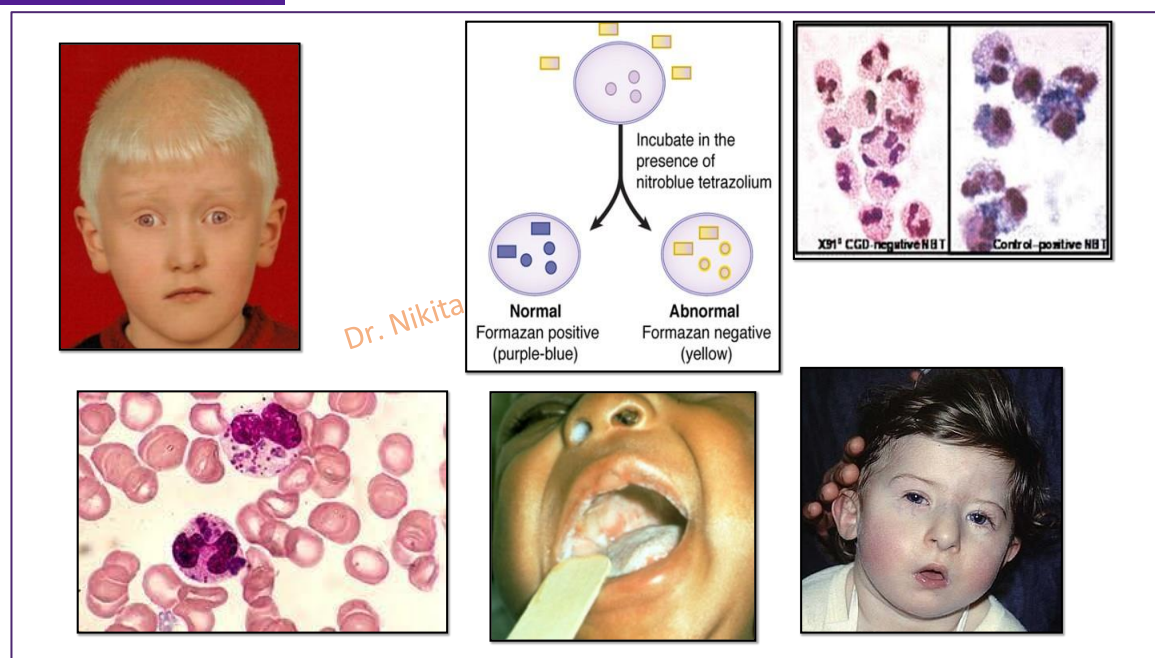


Fig: S 144.1

145. Endocarditis

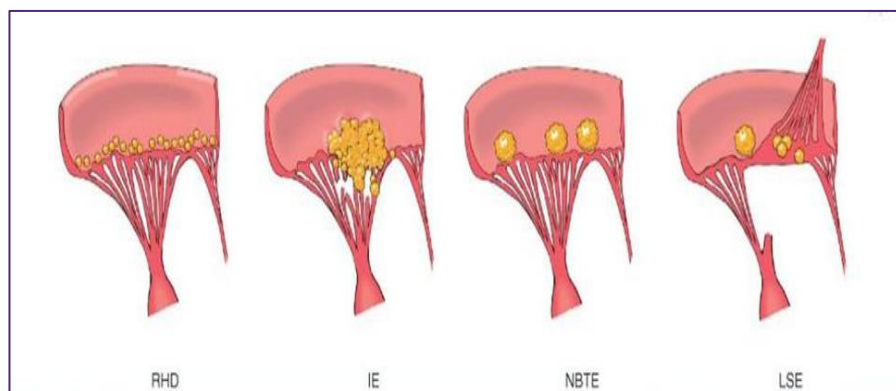


Fig: S 145.1



Fig: S 145.2

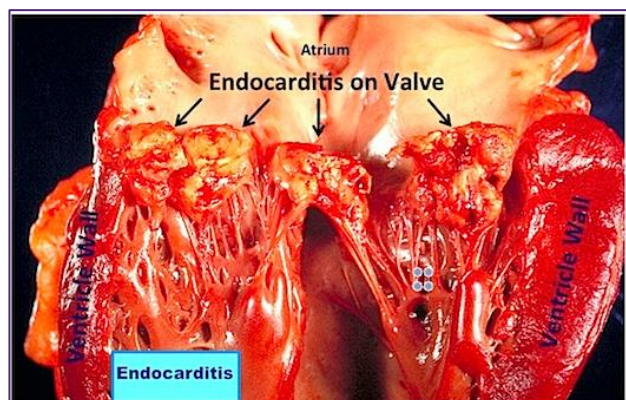


Fig: S 145.2

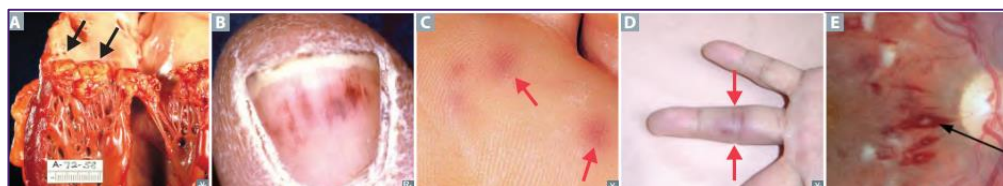


Fig: S 145.3

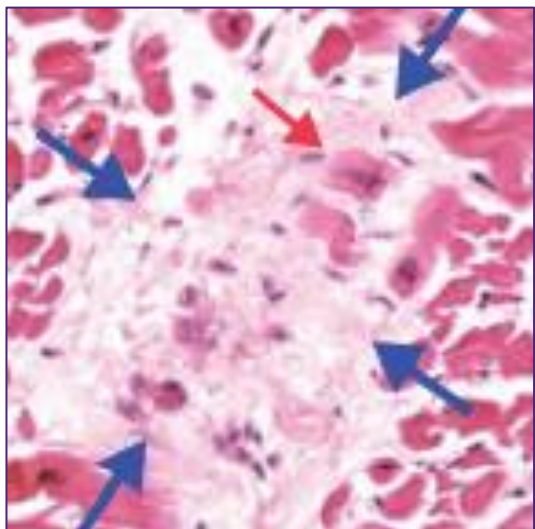


Fig: S 145.4

146. Sarcomere – Muscle Physiology

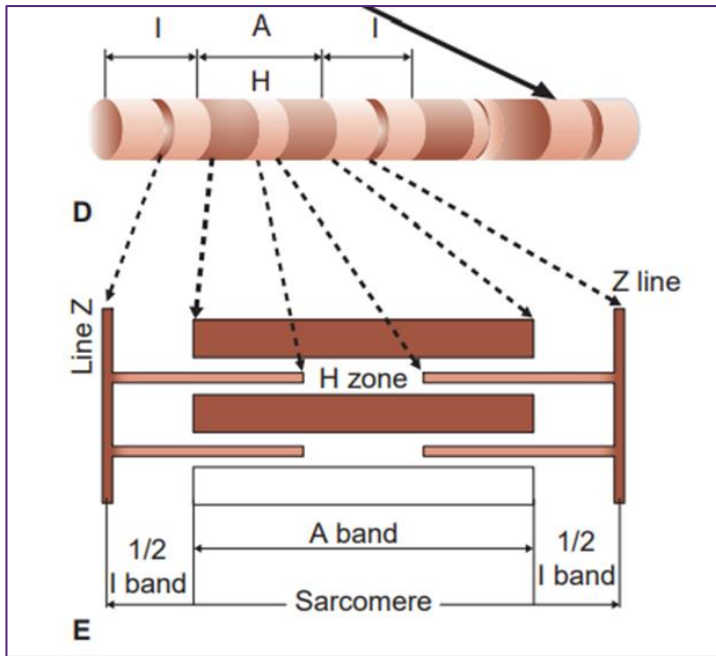


Fig: S 146.1

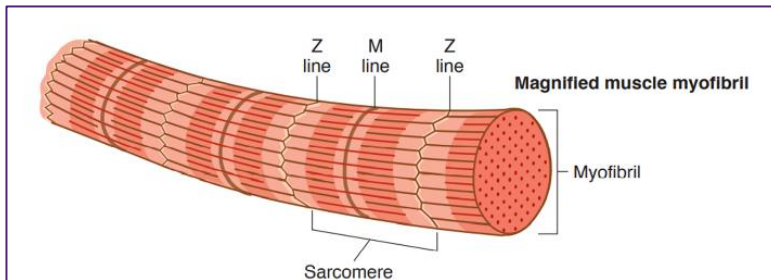


Fig: S 146.2

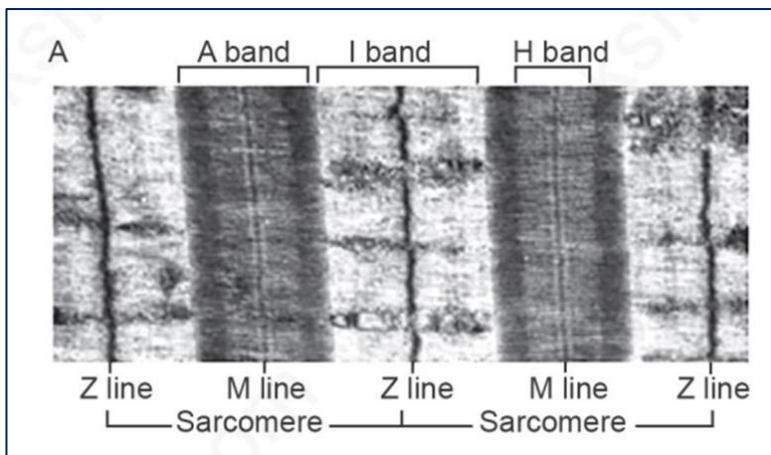


Fig: S 146.3

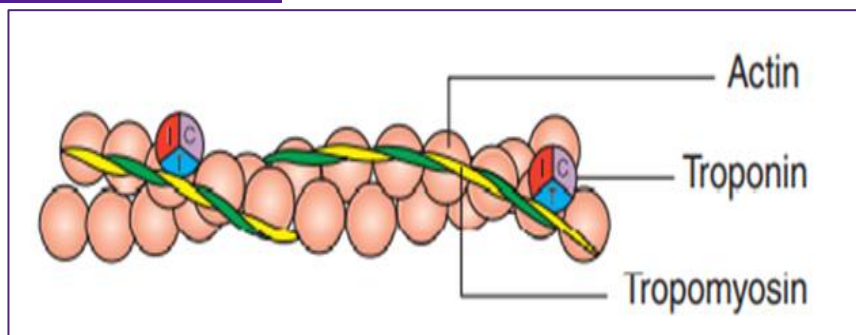


Fig: S 146.4

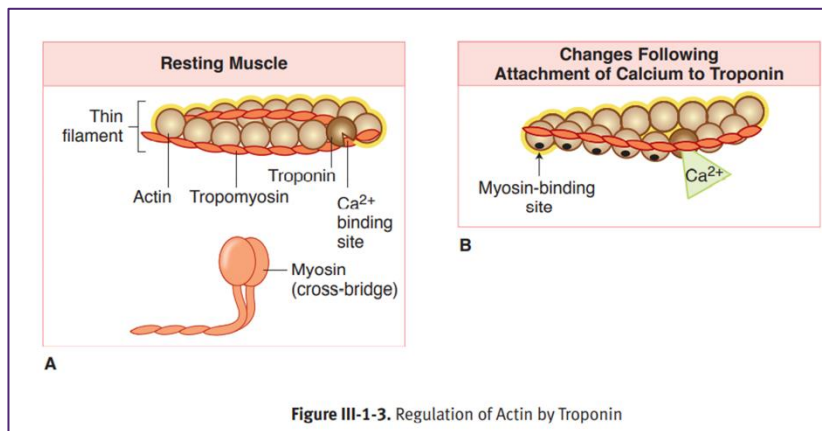


Fig: S 146.5

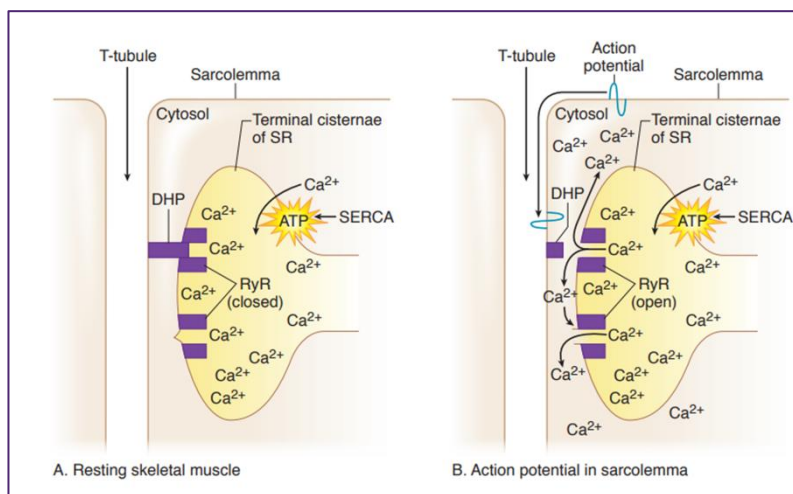


Fig: S 146.6

147. Cardiac murmurs

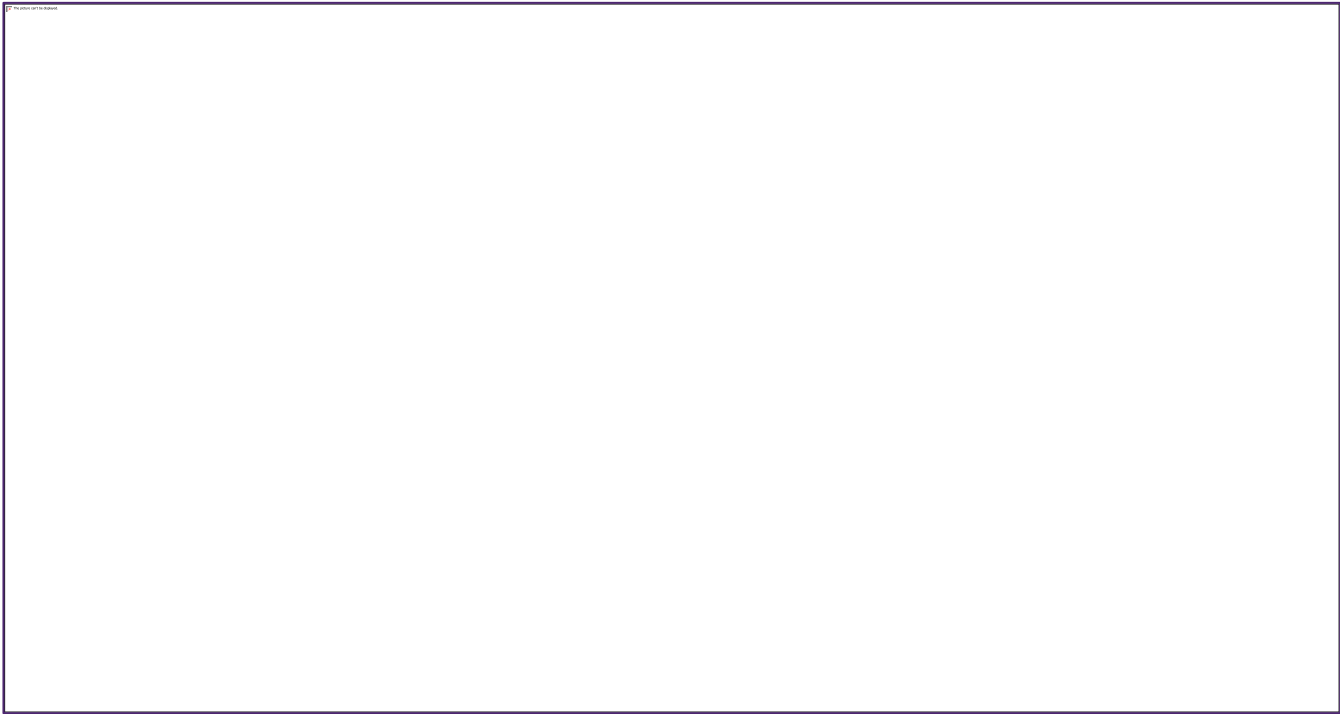


Fig: S 147.1



148. Embryological structures and their derivatives in the genital system

Embryological Structure	Derivative in female	Derivative in male
Genital ridge		
Genital Swelling		
Genital Fold		
Genital tubercle		

Table : S 148.1



149. Various Vocal cord palsies

Type of palsy	U/L Adbuctor	B/L Abductor	U/L Complete	B/L Complete
Nerve				
Cord Position				
Voice				
Dyspnea				
Aspiration				
Treatment				

Table: S 149.1

150. Vesiculobullous lesions

Disease	Magic points	Magic Points
Pemphigus Vulgaris		
Pemphigus Foliaceus		
Bullous Pemphigoid		
Dermatitis Herpetiformis		
Linear IgA Disease		
Epidermo-lysis Bullosa acquisita		

Table: S 150.1

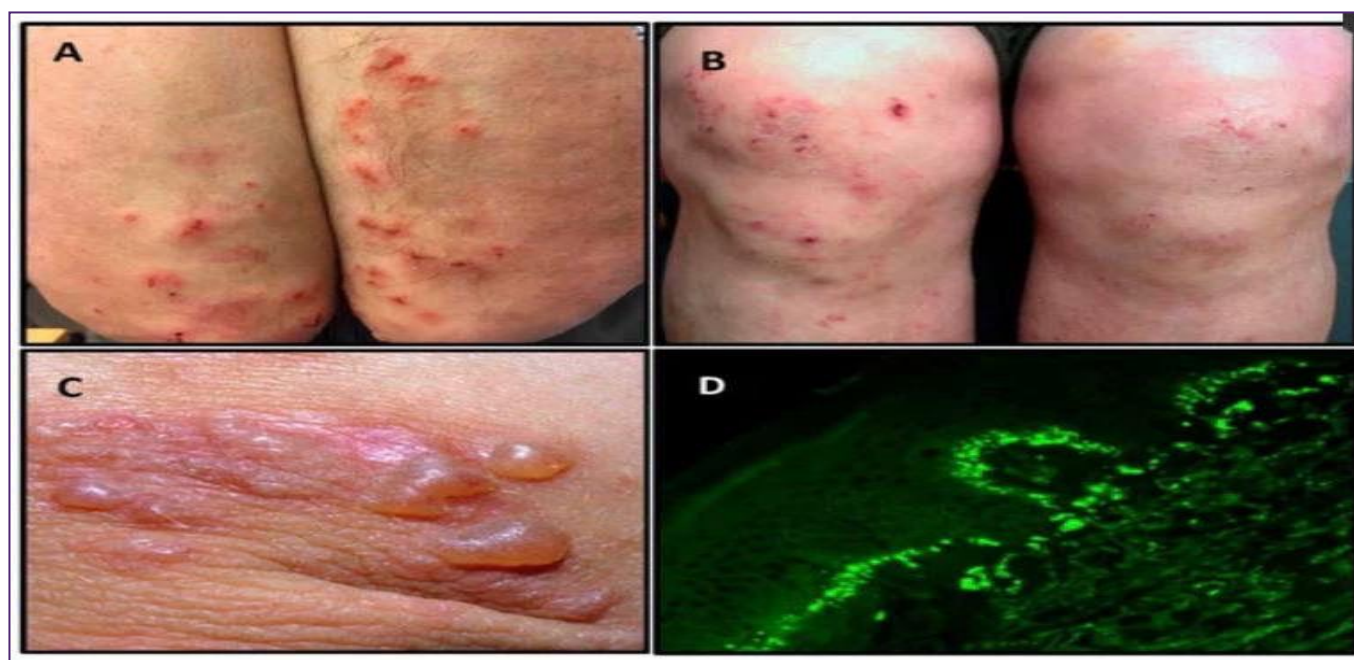


Fig: S 150.1

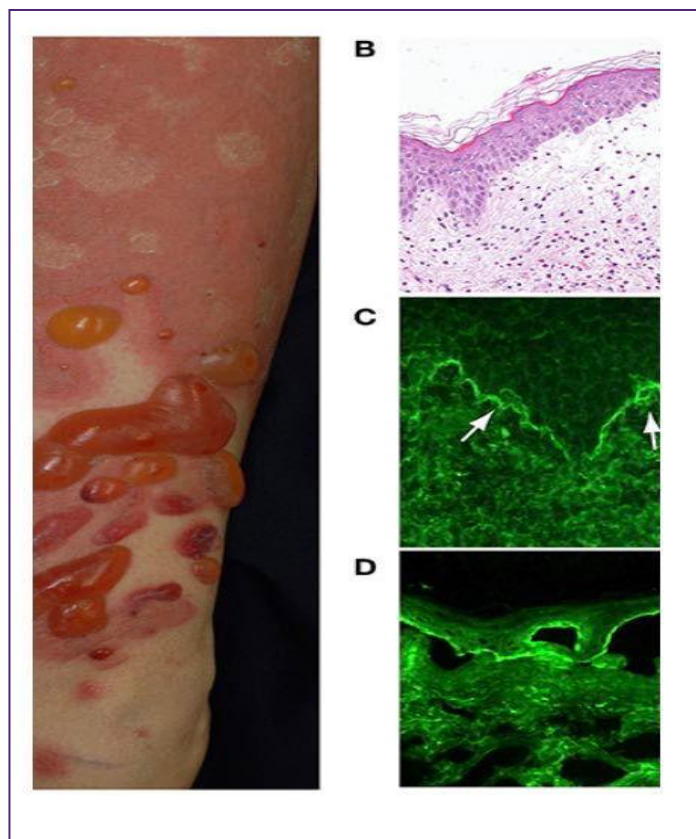


Fig: S 150.2

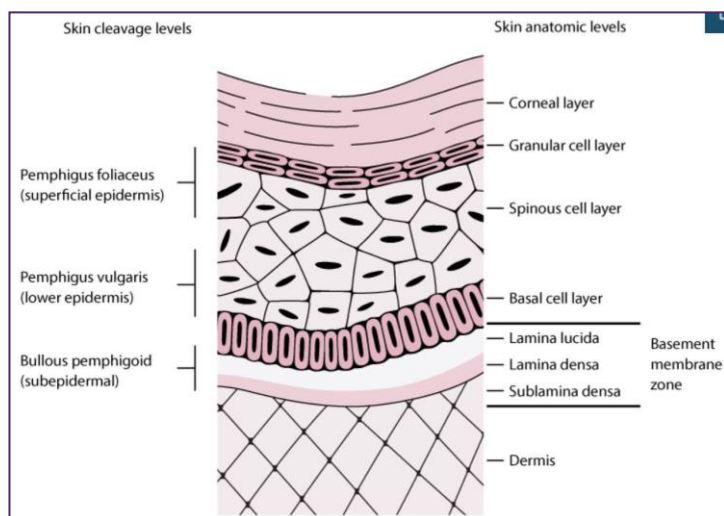


Fig: S 150.3

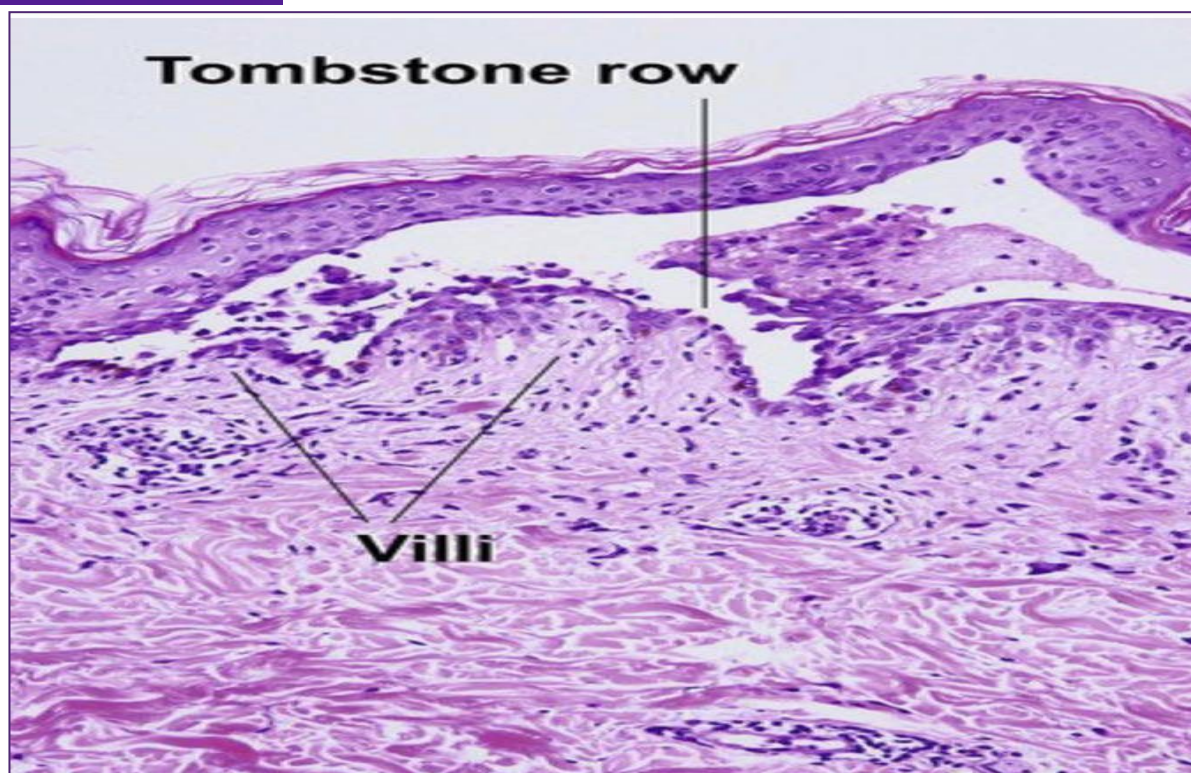


Table: S 150.4

MAGIC NOTES

Lined area for writing notes.



DATE	DATE	DATE	DATE	DATE
1st Revision	2nd Revision	3rd Revision	4th Revision	5th Revision

MAGIC TRACKER

MAGIC NOTES

Lined area for writing notes.



DATE	DATE	DATE	DATE	DATE
1st Revision	2nd Revision	3rd Revision	4th Revision	5th Revision

MAGIC TRACKER

	SUBJECTWISE IMPORTANT TOPICS					
		TRACK YOURS REVISIONS HERE				
	ANATOMY					
1	Azygous venous system ,mediastinum- Lung hilum					
2	thoracic duct					
3	bronchopulmonary segments					
4	diaphragm opening					
5	Abdominal aorta and branches					
6	inguinal canal					
7	Perineum					
8	cadaveric images					
9	Hand muscles					
10	brachial plexus					
11	Internal capsule					
12	aphasia					
13	brainstem syndromes					
14	Circle of Willis					
15	basal ganglia					
16	cerebellum					
17	Cranial nerve functional columns					
18	Calot triangle					
19	epiploic foramen					
20	relations of stomach liver kidney pancreas					
21	Attachment Of humerus femur clavicle first rib					
22	Types of collagen					
23	Triangles and spaces of neck					

	PHYSIOLOGY				
1	Body fluids measurement				
2	Broadmann areas, aphasia				
3	Spinal cord tracts and lesions				
4	Respiratory regulation				
5	Darrow Yannet diagrams				
6	Types of transport				
7	Renal counter current and tubuloglomerular feedback				
	BIOCHEMISTRY				
1	Vitamins				
2	DNA repair, miRNA ,post transcriptional modifications				
3	rate limiting enzymes and their regulators				
4	glycogen storage disorders				
5	lysosomal storage disorders				
6	familial dyslipidemia				
7	apolipoprotein				
8	Urea cycle disorders				
9	Refsum , Zellweger syndrome				
10	Molecular Biology techniques				
	PHARMACOLOGY				
1	Antihistamines				
2	CVS Pharmacology (Digoxin , CHF drugs , Hypertension , Nitrates , aspirin)				

3	Autacoids - Gout migraine, Rh arthritis , prostaglandin								
4	Diabetes drugs and Insulin								
5	ANS Pharmacology - Atropine /adrenaline/ Ach drugs and organophosphate poisoning								
6	Clinical trial								
7	drug schedules								
8	antidotes								
9	First and zero order kinetics								
10	Teratogenic drugs								
11	Hormonal drugs								
12	PPI , IBS drugs								
13	Antimicrobials,								
14	anticoagulant, antiplatelet								
15	anticancer , immunomodulators								
16	Arrhythmia and anti arrhythmic drugs								
17	Antiepileptics								
18	Psychopharmacology								
	PATHOLOGY								
1	Leukaemia and lymphoma								
2	Multiple myeloma								
3	Hodgkin								
4	MEN syndrome								
5	Cushing syndrome								
	FMT								

1	Toxicology					
2	Thanatology post-mortem changes					
3	Sexual offences					
4	Asphyxia,					
5	injury , stabbing, gunshots, types of wound					
6	Identification					
	MICROBIOLOGY					
1	Staphylococcus					
2	Streptococcus					
3	Neisseria - Waterhouse Friedrichson syndrome					
4	Hepatitis B					
5	Gonorrhea					
6	Rickettsia					
7	Food poisoning					
8	TB					
9	Bioterrorism agents					
10	Aspergillosis					
11	Mucormycosis					
12	Candida					
13	Sporotrichosis					
14	Infectious mononucleosis					
15	Immunology					
16	Parvovirus					
17	Hydatid cyst					
18	Protozoa					

	PSM					
1	Sexually transmitted diseases					
2	Epidemiology					
3	National health programmes					
4	Nutrition and health					
5	Biostatistics					
6	BMW					
7	Demography					
8	Family planning, maternal and other pediatric rates					
9	Contraceptives					
	OPHTHAMALOGY					
1	Cataract and management					
2	Tumors of eye orbit					
3	Glaucoma and Drugs					
4	Ocular manifestations of systemic disorders					
5	Refraction error					
6	Extra ocular muscles, retina anatomy					
	ENT					
1	Larynx					
2	Inner ear					
3	Tumours of ENT					
4	Hearing assessment test					
5	Infections Of oral cavity and middle ear					
6	Nerve palsy					

	DERMATOLOGY					
1	Skin structure Histology appendages					
2	Psoriasis					
3	Vesico bullous disorders					
4	Atopic dermatitis					
5	Drug reactions					
6	Tenia					
7	Scabies					
8	Leprosy					
9	Neurocutaneous syndromes					
	ORTHO					
1	Bone tumours					
2	Named fracture					
3	Nerve injuries					
4	Metabolic bone disorders - Scurvy rickets pagets osteoporosis osteomalasia					
5	Pediatric orthopedics					
6	Arthritis - Rheumatoid arthritis osteoarthritis					
7	TB hip spine					
	PSYCHIATRY					
1	Depression					
2	Mania					
3	OCD					
4	Delusion					
5	PTSD					

6	Schizophrenia					
7	Anorexia					
8	Bulimia nervosa					
9	Organic mental disease					
10	CBT/ ECT					
11	Hypochondria					
	ANAESTHESIA					
1	Dugs - IV agents, LA, Inhalational agents					
2	Circuits					
3	Oxygen delivery system					
4	Neuromuscular blockade					
	RADIOLOGY					
1	CT/ MRI Brain					
2	Chest x-ray					
3	Abdomen USG					
4	FAST / eFAST					
5	Nuclear scans					
6	Barium studies					
7	Radiotherapy					
8	EDH/ SDH / SAH					
9	Barium swallow - Achalasia , DES					
10	Pneumothorax					
11	Pneumoperitoneum					
	PEDIATRICS					

1	Nutrition in pediatrics					
2	Congenital heart disease					
3	Dehydration treatment					
4	Anaemia					
5	Leukemia					
6	Development milestones					
7	Fever and Rash					
	OBG					
1	Diseases in pregnancy - TB HIV anemia torch , diabetes, thyroid					
2	Anatomy - Pelvis, placenta types , fetal skull					
3	MTP, Abortion					
4	Ectopic pregnancy					
5	Physiological changes in pregnancy					
6	Hemorrhage -APH/ PPH					
7	Trophoblastic disease					
8	Breech					
9	Episiotomy					
10	Twins management					
11	Infertility					
12	Endometriosis					
13	IVF, ART					
14	PID					
15	Menstruation					
	MEDICINE					

1	Heart failure					
2	Cardiomyopathy					
3	Atrial fibrillation					
4	Parkinson's					
5	Alzheimer's					
6	Stroke syndrome-PCA					
7	AKI					
8	CKD					
9	SLE					
10	Sjogren syndrome					
11	Pneumonia					
12	ARDS					
13	COVID19					
14	Hypothyroidism hyperthyroidism					
15	Diabetes					
16	EEG					
17	ECG					
18	ABG					
19	GBS					
20	Hepatitis					
21	BLS and ACLS					
22	Dermatomyositis					
23	Rh arthritis					
24	Acromegaly					
25	Asthma					

	SURGERY	
1	Peptic Ulcer	☐ ☐ ☐ ☐ ☐
2	Appendicitis	☐ ☐ ☐ ☐ ☐
3	Pancreatitis	☐ ☐ ☐ ☐ ☐
4	Gallstones	☐ ☐ ☐ ☐ ☐
5	Renal stones	☐ ☐ ☐ ☐ ☐
6	IBD	☐ ☐ ☐ ☐ ☐
7	Celiac	☐ ☐ ☐ ☐ ☐
8	Breast sx. Thvroid sx	☐ ☐ ☐ ☐ ☐
9	Esophagus management , stomach bilroth , small intestine, xcolon, ano rectal surgery	☐ ☐ ☐ ☐ ☐
10	Tension pneumothorax	☐ ☐ ☐ ☐ ☐
11	Hernia	☐ ☐ ☐ ☐ ☐
12	Renal tumor, nephrolithiasis, UTI, VUR, testis	☐ ☐ ☐ ☐ ☐
13	Trauma, burns	☐ ☐ ☐ ☐ ☐
14	Wound repair, ulcer, arterial venous disease	☐ ☐ ☐ ☐ ☐
15	Salivary gland,	☐ ☐ ☐ ☐ ☐
16	CNS tumor	☐ ☐ ☐ ☐ ☐
17	Liver and GB	☐ ☐ ☐ ☐ ☐
18	transplantation	☐ ☐ ☐ ☐ ☐
19	bariatric sx	☐ ☐ ☐ ☐ ☐
20	blood products	☐ ☐ ☐ ☐ ☐
21	EDH, SDH, SAH	☐ ☐ ☐ ☐ ☐

DATE	DATE	DATE	DATE	DATE
				
1st Revision	2nd Revision	3rd Revision	4th Revision	5th Revision

MAGIC TRACKER